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FREDERICK J. H. MERRILL Director
JOHN M. CLARKE State Paleontologist

Bulletin 65

PALEONTOLOGY 8

CATALOGUE OF
TYPE SPECIMENS OF PALEOZOIC FOSSILS
IN
NEW YORK STATE MUSEUM

BY
JOHN M. CLARKE
With the assistance of
RUDOLPH RUEDEMANN
Assistant State Paleontologist

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Bulletin 65
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RUDOLF RUEDEMANN

PREFACE

The type specimens of natural objects, that is the actual material on which published descriptive accounts and discussions have been based, constitute the unique treasures of a museum. Such objects once lost or destroyed, replacement is impossible. Howsoever imperfect or fragmentary the type or original specimen may be, of however superior quality some other example of the same creature, the second can not serve to scientific students the function of the first. The type specimen is the basis of comparison and reference for all time.

Efforts have been made by various writers to classify such type specimens according to the particular part they have played in the original description of the organic group to which they appertain, species, genus or family. Such type specimen, using the term loosely, may be the actual specimen from which the original description was drawn or one of several such specimens (*type*); or it may have served for a later illustration and description of the species, either by its own or some other author (*hypotype*). These distinctions are recognized in this catalogue, but it has not seemed practicable to enter into a more refined subdivision of types by the employment of other designations (e. g. cotype, genotype, topotype, etc.). Plastic reproductions of types or hypotypes are distinguished by the prefix *plasto*, thus: *plastotype*, *hypoplastotype*. Such objects have been listed here.

The publication of the *Palaeontology of New York* and the extensive list of papers accessory and supplementary thereto have given birth to a

very large number of type specimens from the paleozoic strata of America. Some part of these, specially that utilized in the early volumes of the paleontologic reports, was the personal property of the author of those reports and passed from his hands to the possession of the American museum of natural history in the city of New York. Till the preparation of this catalogue was begun, no serious effort to bring together the type specimens in the state museum of these and other descriptions, into one place or record was ever carried to completion. Some years ago the writer undertook the work of publishing lists, believed to be complete at the time, of certain of the organic groups, namely the Crustacea, Vermes and Cephalopoda.[1] But a revision of these lists has shown considerable omissions, due somewhat to normal growth as investigations have progressed but more to the fact that these types have been scattered all through the collections of the museum both in the State Hall and in the Geological Hall. It has been an arduous task to search out and bring together these specimens, which during the past half century have become so widely and carelessly diffused, but their number is noteworthy, and the importance of this record justifies the labor put on it.

This catalogue is arranged as follows: the general classification is biologic and follows only the broadest subdivisions. Each entry represents a single specimen and is accompanied by two numbers, the first serial, the second fractional and corresponding to the number borne by the specimen. In this fractional number the numerator carries the number assigned to the major division, the genus and the species, while the denominator indicates the number of the specimen of the species. Thus, the sponge Dictyospongia sceptrum Hall (sp.) carries the number $\frac{2264}{2}$. 2000 is the number assigned to the *Spongiae*, 2260 that assigned to the genus Dictyospongia, 2264 the number for D. sceptrum, the fourth species of that genus, and $\frac{2264}{2}$ the number for the second specimen of this species. In the scheme of numbering the following is the allotment made for the major biologic divisions:

Plantae	100	Lamellibranchiata	9000
Protozoa	1000	Gastropoda	10000
Spongiae	2000	Pteropoda	11000
Cnidaria	3000	Cephalopoda	12000
Echinodermata	4000	Crustacea	13000–14000
Vermes	5000	Tracheata	15000
Bryozoa	6000	Pisces	16000
Brachiopoda	7000–8000		

[1] N. Y. state geol. 11th rep't. 1892. p. 31-53; 12th an. rep't. 1893. p. 57-104.

For ease of use it has been the purpose to keep these divisions as broad as practicable, in order to avoid duplicating too often the alphabetic arrangement of the species and to maintain the elasticity of the scheme in the incorporation of future additions. The work does not purport to be one on taxonomy, but aims to present the arrangement in the simplest form. During the progress of the printing of the catalogue, a period of 18 months, the continuous publication of paleontologic researches and acquisitions to the collections by gift and purchase have notably increased the number of type specimens and these have been added in a supplementary list brought up to February 1903.

While the main part of the book is devoted to the biologic arrangement of the type material, a second part gives a concise relisting of the species in their stratigraphic arrangement.

A chief purpose of this record is to make available to students the card catalogue of these types now in the possession of the museum. At the same time, it serves to indicate the wealth of the museum in these important elements, of which upward of 5000 are here listed, a number which exceeds all type specimens of paleozoic organisms from the New York rocks in the possession of all other collections taken together.

JOHN M. CLARKE

Albany N. Y. 17 Ap. 1903 *State Paleontologist*

CORRIGENDA

Under $\frac{302}{1}$, 2d line; for p. 131 read p. 191

" $\frac{2140}{1}$, 6th line; for fig. 5 read fig. 5, 6

Page 24, for $\frac{3331}{1}$ read $\frac{2330}{2}$

Under $\frac{3140}{1}$, 9th line; for Near read New

" $\frac{3300}{2}$, 3d line; for fig. 2 read fig. 1

" $\frac{3300}{3}$, 3d line; for fig. 1 read fig. 2

" $\frac{6766}{1}$ insert New Scotland beds Near Clarksville N. Y.

" $\frac{6881}{1}$ for Stictopora investis read *Stictopora invertis*

" $\frac{7210}{3}$, 2d line; for no. 49 read no. 45

Page 307; $\frac{8320}{2}$ and $\frac{8320}{3}$ are the same specimen

Page 358, lines 13, 27, 29, 31 and 34; for Aviculopecten read *Actinopteria*

Page 602; *dele* $\frac{12242}{2}$. Type in the American museum of natural history, New York N. Y.

PLANTAE

ARCHAEOCALAMITES Stur

Archaeocalamites inornatus Dawson sp.

1 141 TYPE Calamites inornatus Dawson. Quarterly journal of the Geological society of London. 1862. 18:310. pl. 17. fig. 36.

Genesee shale — Shore of Cayuga lake, N. Y.

ARTHROPHYCUS Hall

Arthrophycus harlani Conrad sp.

2 141 HYPOTYPE Fucoides harlani Conrad. Annual report on paleontology. 1838. p. 113.

Arthrophycus harlani Merrill. New York state museum bulletin 19. 1898. pl. 45. fig. 2.

Medina sandstone

3 141 HYPOTYPE Grabau. New York state museum bulletin 45. 1901. pl. 16.

Medina sandstone — Lewiston N. Y.

BYTHOTREPHIS Hall

Bythotrephis antiquata Hall

4 142 TYPE Buthotrephis antiquata Hall. Paleontology of New York. 1847. 1:8. pl. 2. fig. 6.

Chazy limestone — Chazy, Clinton co. N. Y.

Bythotrephis caespitosa Hall

5 141 TYPE Buthotrephis? caespitosa Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 170. pl. 1. fig. 1c.

Trenton limestone — Near Watertown, Jefferson co. N.Y.

Bythotrephis gracilis Hall

6 142 TYPE Buthotrephis gracilis Hall. Paleontology of New York. 1847. 1:62. pl. 21. fig. 1.

Trenton limestone — Jacksonburg, Herkimer co. N. Y.

Bythotrephis gracilis var. **crassa** Hall

6a 142a HYPOTYPE Buthotrephis gracilis var. crassa Hall. Paleontology of New York. 1852. 2:19.

Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 6.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Bythotrephis impudica Hall

7 $\frac{143}{1}$ TYPE Buthotrephis impudica Hall. Paleontology of New York. 1852. 2:20, pl. 6, fig. 2.
Clinton beds New Hartford, Oneida co. N. Y.

Bythotrephis palmata Hall

8 $\frac{144}{1}$ TYPE Buthotrephis palmata Hall. Paleontology of New York. 1852. 2:20, pl. 7, fig. 1a.
Clinton beds New Hartford N. Y.

CELLULOXYLON Dawson

Celluloxylon primaevum Dawson

9 $\frac{180}{1}$ TYPE Celluloxylon primaevum Dawson. Quarterly journal of the Geological society of London. 1881. 37:302.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase

CORDAITES Unger

Cordaites (?) Dawson

10 $\frac{180}{1}$ TYPE Cordaites (?) Dawson. Quarterly journal of the Geological society of London. 1862. 18:318, pl. 16, fig. 59.
Oneonta beds Franklin, Delaware co. N. Y.

DADOXYLON Endlicher

Dadoxylon (Cordaioxylon) clarkii Dawson

11 $\frac{200}{1}$ TYPE Dadoxylon clarkii Dawson. Geological survey of Canada; report on Erian plants of Canada, pt 2. 1882. p. 124.
Genesee (Styliola) limestone
Canandaigua lake, Ontario co. N. Y.
J. M. Clarke purchase

FUCOIDES Brongniart

Fucoides auriformis Hall[1]

12 $\frac{220}{1}$ TYPE Fucoides auriformis Hall. Paleontology of New York. 1852. 2:7, pl. 3, fig. 4.
Medina sandstone Medina, Orleans co. N. Y.

Fucoides harlani *see* Arthrophycus harlani

[1]Probably not organic.

PALAEOPHYCUS Hall

Palaeophycus rugosum Hall

13 $\frac{240}{1}$ TYPE Palaeophycus rugosum Hall. Paleontology of New York. 1847. 1:63, pl. 21, fig. 2.
Trenton limestone — West Canada creek, Herkimer co. N. Y.

Palaeophycus tubulare Hall

14 $\frac{241}{1}$ TYPE Palaeophycus tubularis Hall. Paleontology of New York. 1847. 1:7, pl. 2, fig. 1.
Beekmantown limestone — Amsterdam, Montgomery co. N. Y.

15 $\frac{241}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 2, fig. 2.
Beekmantown limestone — Fort Plain, N. Y.

16 $\frac{241}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 2, fig. 4.
Beekmantown limestone — Fort Plain N. Y.

17 $\frac{241}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 2, fig. 5.
Beekmantown limestone — Fort Plain N. Y.

PERONOSPORITES

Peronosporites globosus Loomis

18 $\frac{260}{1}$ TYPE Peronosporites globosus Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16, fig. 4.
Clinton beds — Rochester N. Y.
F. B. Loomis, donor

Peronosporites minutus Loomis

19 $\frac{261}{1}$ TYPE Peronosporites minutus Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16, fig. 5, 6.
Clinton beds — Rochester N. Y.
F. B. Loomis, donor

Peronosporites ramosus Loomis

20 $\frac{262}{1}$ TYPE Peronosporites ramosus Loomis. New York state museum bulletin 39. 1900. p. 225, pl. 16, fig. 1, 2.
Clinton beds — Rochester N. Y.
F. B. Loomis, donor

21 $\frac{2\,8\,2}{2}$ TYPE Loomis. New York state museum bulletin 39. 1900. pl. 16, fig. 3.
Clinton beds Rochester N. Y.
F. B. Loomis, donor

PHYTOPSIS Hall

Phytopsis tubulosa Hall

22 $\frac{2\,8\,0}{1}$ TYPE Phytopsis tubulosum Hall. Paleontology of New York. 1847. 1:38, pl. 8, fig. 1a.
Lowville limestone Fort Plain, N. Y.

23 $\frac{2\,8\,0}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 8, fig. 1b.
Lowville limestone Fort Plain N. Y.

24 $\frac{2\,8\,0}{3}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 8, fig. 1c.
Lowville limestone Fort Plain N. Y.

25 $\frac{2\,8\,0}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 8, fig. 1e.
Lowville limestone Fort Plain N. Y.

RHACHIOPTERIS Dawson

Rhachiopteris cyclopteroides Dawson

26 $\frac{3\,0\,0}{1}$ TYPE Rhachiopteris cyclopteroides Dawson. Quarterly journal of the Geological society of London. 1862. 18:323. (Not figured)
Chemung beds[1] Montrose Pa.

Rhachiopteris pinnata Dawson

27 $\frac{3\,0\,1}{1}$ TYPE Rhachiopteris pinnata Dawson. Quarterly journal of the Geological society of London. 1862. 18:323, pl. 16, fig. 6o.
Catskill sandstone[2] Montrose Pa.

Rhachiopteris punctata Dawson

28 $\frac{3\,0\,2}{1}$ TYPE (Unnamed) Vanuxem. Geological survey of New York; report on the 3d district. 1842. p. 131, fig 56.[3]
Rhachiopteris punctata Dawson. Quarterly journal of the Geological society of London. 1862. 18:323, pl. 16, fig. 61.
" Catskill sandstone Catskill, Greene co." N. Y.
[Label on museum specimen]

1 Base of Catskill group, New York. *Dawson*
2 In the description of this species the specimen is stated to have come from the Marcellus shale of New York.
3 Between Bainbridge [Chenango co.] and Colesville [Broome co.]. Vanuxem. From the Catskill group of New York. *Dawson*

Rhachiopteris tenuistriata Dawson

29 141 TYPE Rhachiopteris tenuistriata Dawson. Quarterly journal of the Geological society of London. 1862. 18:323, pl. 16, fig. 45.
Genesee shale Moravia, Cayuga co. N. Y.

30 141 TYPE Dawson. Quarterly journal of the Geological society of London. 1862. v. 18, pl. 16, fig. 46.
Genesee shale Moravia N. Y.

RUSOPHYCUS Hall

Rusophycus bilobatum Hall

31 141 TYPE Rusophycus bilobatus Hall. Paleontology of New York. 1852. 2:124, pl. 3, fig. 1.
Chazy beds New Hartford, Oneida co. N. Y.

32 141 TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 3, fig. 1.
Chazy beds New Hartford N. Y.

33 141 TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 3, fig. 3.
Chazy beds New Hartford N. Y.

SIGILLARIA Brongniart

Sigillaria simplicitas Vanuxem

34 141 TYPE Sigillaria simplicitas Vanuxem. Geological survey of New York. report on the 3d district. 1842. p. 100, fig. 34.
Oneonta beds Between Mount Upton and North Sanbridge, Chenango co. N. Y.
Geological survey collection

SPHENOTHALLUS Hall

Sphenothallus latifolius Hall

35 141 TYPE Sphenothallus latifolius Hall. Paleontology of New York. 1847. 1:[illegible], pl. 28, fig. 2a.
Lorraine beds Near Schoharie N. Y.

36 141 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 28, fig. 2b.
Lorraine beds Near Schoharie N. Y.

37 141 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 28, fig. 2c.
Lorraine beds Near Schoharie N. Y.

38 $\frac{380}{4}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig 2e.

Lorraine beds — Near Schoharie N. Y.

39 $\frac{380}{6}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 68, fig. 2f.

Lorraine beds — Near Schoharie N. Y.

Spirophyton velum *see* Taonurus retortus

TAONURUS Fischer-Ooster

Taonurus retortus Miller

40 $\frac{400}{1}$ TYPE Retort fucoid Vanuxem. Geological survey of New York; report on the 3d district. 1842. p.177, fig. 47.

Spirophyton velum Hall. 16th annual report of the New York state cabinet of natural history. 1863, p. 82, fig. 4.

Ithaca beds — Deruyter, Madison co. N. Y. Geological survey collection

PROTOZOA (?)

(RECEPTACULITIDAE)

Dictyocrinus squamifer *see* Ischadites squamifer

ISCHADITES Murchison

Ischadites bursiformis Hall (sp.)

41 $\frac{1000}{1}$ TYPE Receptaculites bursiformis Hall. Second annual report of the New York state geologist. 1883. Explanation of pl. 23, fig. 12.

Ischadites bursiformis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 24, fig. 12.

Schoharie grit — Drift near Thompsons lake, Albany co. N. Y.

Ischadites squamifer Hall (sp.)

42 $\frac{1020}{1}$ TYPE Dictuocrinites Conrad. Annual report on the geological survey of New York. 1841. plate.

Dictyocrinus squamifer Hall. Paleontology of New York. 1859. 3:135, pl. 7A, fig. 11, 13.

Receptaculites squamifer Hall. 2d annual report of the New York state geologist. 1883. pl. 23, fig. 1, 2.

Ischadites squamifer Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 1, 2.

Herkimer Schuyler N. Y.

Receptaculites bursiformis = Ischadites bursiformis

Receptaculites squamifer = Ischadites squamifer

RECEPTACULITES De France

Receptaculites sacculus Hall

422 21911 TYPE Receptaculites sacculus Hall. Transactions of the Albany institute. 1857. iv. 1.

Hall. 11th annual report of the state geologist of Indiana. pl. 1, fig. 5.

Niagara Walnut Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

COELENTERATA

SPONGIAE

ACLOEODICTYA Hall & Clarke

Acloeodictya (?) eccentrica Hall sp.)

43 21911 TYPE Ectenodictya eccentrica Hall. 35th annual report of the New York state museum of natural history. 1884. p. 476, pl. 19, 20, fig. 1.

Acloeodictya(?) eccentrica Hall & Clarke. New York state museum memoir 2. 1898. pl. 54, fig. 1.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

Acloeodictya marsipus Hall & Clarke

44 $\frac{2991}{1}$ TYPE Acloeodictya marsipus Hall & Clarke. New York state museum memoir 2. 1898. p. 178, pl. 60, fig. 4.

Keokuk beds Indian Creek Ind.

A. S. Tiffany purchase

45 $\frac{2991}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 60, fig. 5.

Keokuk beds Indian Creek Ind.

A. S. Tiffany purchase

46 $\frac{2991}{3}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 61, fig. 1, 2.

Keokuk beds Crawfordsville Ind.

A. S. Tiffany purchase

47 $\frac{2001}{4}$ TYPE Hall & Clarke. New York state museum memoir 2 1898. pl. 61, fig. 3.
Keokuk beds Crawfordsville Ind.
A. S. Tiffany purchase

48 $\frac{2001}{5}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 68, fig. 7.
Keokuk beds Indian Creek Ind.
A. S. Tiffany purchase

49 $\frac{2001}{6}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 68, fig. 8.
Keokuk beds Indian Creek Ind.
A. S. Tiffany purchase

ACTINODICTYA Hall

Actinodictya placenta Hall

50 $\frac{2020}{1}$ TYPE Actinodictya placenta Hall. 9th annual report of the New York state geologist. 1890. p. 60.
Hall & Clarke. New York state museum memoir 2. 1898. pl. 31, fig. 2.
Chemung beds Brown hill, near Cohocton N. Y.

AGLITHODICTYA Hall & Clarke

Aglithodictya numulina Hall & Clarke

51 $\frac{2040}{1}$ TYPE Aglithodictya numulina Hall & Clarke. New York state museum memoir 2. 1898. p. 145, pl. 25, fig. 6, 7, 8, 9.
Chemung beds Near Lawrenceville Pa.
Andrew Sherwood, coll. 1871

ARCHAEOCYATHELLUS Ford

Archaeocyathellus rarus Ford (sp.)

52 $\frac{2060}{1}$ TYPE Protocyathus rarus Ford. American journal of science and arts, 3d ser. 1878. 15:124, 125, fig. 1a, 1b.
Ethmophyllum rarum Walcott. U. S. geological survey bulletin 30. 1886. pl. 5, fig. 2b.
Archaeocyathus (Archaeocyathellus) rarus Walcott. 10th annual report of the director of the U. S. geological survey. 1890. pl. 54, fig. 2b.
Lower Cambric Troy N. Y.
S. W. Ford purchase

Archaeocyathellus rensselaericus Ford (sp.)

53 $\frac{2061}{1}$ TYPE Archaeocyathellus? rensselaericus Ford. American journal of science and arts, 3d ser. 1873. 5:211, 212, fig. 1.

Ethmophyllum rensselaericum Walcott. U. S. geological survey bulletin 30. 1886. pl. 5, fig. 1f.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

Archaeocyathus rarus *see* Archaeocyathellus rarus

ARYSTIDICTYA Hall & Clarke

Arystidictya nodifera Hall & Clarke

54 $\frac{2080}{1}$ PLASTOTYPE Arystidictya nodifera Hall & Clarke. New York state museum memoir 2. 1898. p. 137, pl. 41, fig. 11.

Lower Chemung beds — Cotton hill, near Avoca N. Y.

BOTRYODICTYA Hall & Clarke

Botryodictya ramosa Lesquereux (sp.)

55 $\frac{2100}{1}$ HYPOPLASTOTYPE Dictyophytum ramosum Lesquereux. Description coal flora Carboniferous formation Pennsylvania and United States. 1884. 3:827.

Botryodictya ramosa Hall & Clarke. New York state museum memoir 2. 1898. pl. 13, fig. 5.

Chemung beds — Lawrenceville Pa.

CALATHOSPONGIA Hall & Clarke

Calathospongia carceralis Hall & Clarke

56 $\frac{2120}{1}$ PLASTOTYPE Calathospongia carceralis Hall & Clarke. New York state museum memoir 2. 1898. p. 157, pl. 52, fig. 2.

Waverly beds — Richfield O.

57 $\frac{2120}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 60, fig. 1, 2.

Keokuk beds — Crawfordsville Ind.

A. S. Tiffany purchase

Calathospongia carlli Hall & Clarke

58 $\frac{2121}{1}$ TYPE Calathospongia carlli Hall & Clarke. New York state museum memoir 2. 1898. p. 158, pl. 52, fig. 4, 5.

Waverly beds — Near Pleasantville Pa.

J. F. Carll, donor. 1899

59 $\frac{21}{2}\frac{21}{1}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 52, fig. 6, 7.
Waverly beds Near Pleasantville Pa.
J. F. Carll, donor. 1899

Calathospongia tiffanyi Hall & Clarke

60 $\frac{21}{1}\frac{22}{1}$ TYPE Calathospongia tiffanyi Hall & Clarke. New York state museum memoir 2. 1898. p. 158, pl. 51, fig. 5, 6.
Waverly beds Ohio
A. S. Tiffany purchase

CERATODICTYA Hall & Clarke

Ceratodictya annulata Hall (sp.)

61 $\frac{21}{1}\frac{10}{1}$ PLASTOTYPE Dictyophyton annulatum Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 90, pl. 3, fig. 3.
Ceratodictya annulata Hall & Clarke. Memoir of the New York state museum. 1898. no. 2, pl. 22, fig. 5.
Chemung beds Western New York

Ceratodictya carpenteriana Hall & Clarke

62 $\frac{21}{1}\frac{11}{1}$ PLASTOTYPE Ceratodictya carpenteriana Hall & Clarke. New York state museum memoir 2. 1898. p. 117, pl. 42, fig. 1.
Chemung beds Near Ischua N. Y.

Ceratodictya centeta Hall & Clarke

63 $\frac{21}{1}\frac{12}{1}$ TYPE Ceratodictya centeta Hall & Clarke. New York state museum memoir 2. 1898. p. 120, pl. 41, fig. 1.
Chemung beds Ischua N. Y.

64 $\frac{21}{2}\frac{12}{1}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 41, fig. 5.
Chemung beds Ischua N. Y.

Ceratodictya cincta Hall (sp.)

65 $\frac{21}{1}\frac{13}{1}$ PLASTOTYPE Dictyophyton cinctum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 472.
Ceratodictya cincta Hall & Clarke. New York state museum memoir 2. 1898. pl. 22, fig. 9.
Chemung beds Erie Pa

CLATHROSPONGIA Hall

Clathrospongia (?) desmia Hall & Clarke

66 $\frac{21\,60}{1}$ PLASTOTYPE Clathrospongia (?) desmia Hall & Clarke. New York state museum memoir 2. 1898. p. 125, pl. 25, fig. 3.

Chemung beds Alfred N. Y.

Clathrospongia fenestrata Hall (sp.)

67 $\frac{21\,61}{1}$ TYPE Dictyophyton fenestratum Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 90, pl. 3, fig. 4.

Clathrospongia fenestrata Hall & Clarke. New York state museum memoir 2. 1898. pl. 14, fig. 2.

Chemung beds Chemung narrows N. Y.

Clathrospongia (?) hamiltonensis Hall (sp.)

68 $\frac{21\,62}{1}$ TYPE Dictyophyton hamiltonense Hall. 35th annual report of the New York state museum of natural history. 1884. p. 468.

Clathrospongia (?) hamiltonensis Hall & Clarke. New York state museum memoir 2. 1898. pl. 14, fig. 1.

Hamilton shales Canandaigua lake N. Y.

Clathrospongia (?) irregularis Hall (sp.)

69 $\frac{21\,63}{1}$ TYPE Dictyophyton irregulare Hall. 35th annual report of the New York state museum of natural history. 1884.
p. 470.

Clathrospongia (?) irregularis Hall & Clarke. New York state museum memoir 2. 1898. pl. 15, fig. 6, 7.

Chemung (Portage?) beds Ithaca N. Y.

Clathrospongia (?) tomaculum Hall (sp.)

70 $\frac{21\,64}{1}$ PLASTOTYPE Dictyophyton tomaculum Hall. 9th annual report of the New York state geologist. 1890. p. 58.

Clathrospongia (?) tomaculum Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 11.

Chemung beds Alfred N. Y.

CLEODICTYA Hall

Cleodictya gloriosa Hall

71 $\frac{2180}{1}$ PLASTOTYPE Cleodictya gloriosa Hall. 35th annual report of the New York state museum of natural history. 1884. p. 479.

Cleodictya gloriosa Hall & Clarke. New York state museum memoir 2. 1898. pl. 69, fig. 1; pl. 70, fig. 1.

Keokuk beds Crawfordsville Ind.

Cleodictya mohri Hall

72 $\frac{2181}{1}$ TYPE Cleodictya? mohri Hall. 35th annual report of the New York state museum of natural history. 1884. p. 479.

Cleodictya mohri Hall & Clarke. New York state museum memoir 2. 1898. p. 184, fig. 34, 35, 36, 37.

Keokuk beds Crawfordsville Ind.

CLEPSYDROSPONGIA Hall & Clarke

Clepsydrospongia matutina Hall & Clarke

73 $\frac{2200}{1}$ TYPE: PLASTOTYPE Clepsydrospongia matutina Hall & Clarke. New York state museum memoir 2. 1898. p. 71, pl. 34, fig. 1, 2.

Portage beds Naples N. Y.

D. D. Luther, coll. 1896

CRYPTODICTYA Hall

Cryptodictya alleni Hall

74 $\frac{2220}{1}$ TYPE Cryptodictya alleni Hall. 9th annual report of the New York state geologist. 1890. p. 60.

Cryptodictya alleni Hall & Clarke. New York state museum memoir 2. 1898. pl. 31, fig. 3.

Chemung beds Lyndon, Cattaraugus co. N. Y.

CYATHODICTYA Hall & Clarke

Cyathodictya reticulata Walcott (sp.)

75 $\frac{2240}{1}$ HYPOTYPE Cyathophycus reticulatus Walcott. Transactions of the Albany institute. 1879. 10:18.

Cyathodictya reticulata Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 1.

Utica slate Holland Patent N. Y.

W. P. Rust purchase

76 $\frac{2240}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 2.

Utica slate Holland Patent N.

W. P. Rust purc

77 $\frac{2240}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 3.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

78 $\frac{2240}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 4.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

79 $\frac{2240}{5}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 5.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

80 $\frac{2240}{6}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 6.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

81 $\frac{2240}{7}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 7.
Utica slate Holland Patent N. Y.
C. Haskell purchase

82 $\frac{2240}{8}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 8.
Utica slate Holland Patent N. Y.
C. Haskell purchase

83 $\frac{2240}{9}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 9.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

84 $\frac{2240}{10}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 10, 11.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

85 $\frac{2240}{11}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 12.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

86 $\frac{2240}{12}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 13.
Utica slate Holland Patent N. Y.
W. P. Rust purchase

Cyathophycus reticulatus *see* Cyathodictya reticulata

Cyathophycus subsphaericus *see* Sphaerodictya subsphaerica

DICTYOSPONGIA Hall & Clarke

Dictyospongia cylindrica Whitfield (sp.)

87 $\frac{22\,60}{1}$ HYPOTYPE Dictyophyton cylindricum Whitfield. American museum of natural history bulletin 1. 1881. p. 19.

Dictyospongia cylindrica Hall & Clarke. New York state museum memoir 2. 1898. p. 166, fig. 22.

Keokuk beds Crawfordsville Ind.

Dictyospongia eumorpha Hall & Clarke

88 $\frac{22\,61}{1}$ PLASTOTYPE Dictyospongia eumorpha Hall & Clarke. New York state museum memoir 2. 1898. p. 75, pl. 15, fig. 3.

Chemung beds Wellsville N.Y.

Dictyospongia haplea Hall & Clarke

89 $\frac{22\,62}{1}$ TYPE: PLASTOTYPE Dictyospongia haplea Hall & Clarke. New York state museum memoir 2. 1898. p. 68, pl. 33, fig. 1.

Portage beds Naples N.Y.

D. D. Luther, coll. 1896

Dictyospongia (?) marcellia Clarke (sp.)

90 $\frac{22\,63}{1}$ TYPE Hyalostelia (?) marcellia Clarke. 13th annual report of the New York state geologist. 1894. 1:177, pl. 4, fig. 19, 20, 21, 22.

Dictyospongia (?) marcellia Hall & Clarke. New York state museum memoir 2. 1898. pl. 41, fig. 8, 9.

Marcellus shale Livonia salt shaft, Livonia N.Y.

D. D. Luther coll. 1891

Dictyospongia sceptrum Hall (sp.)

91 $\frac{22\,64}{1}$ PLASTOTYPE Dictyophyton sceptrum Hall. 9th annual report of the New York state geologist. 1890. p. 56.

Dictyospongia sceptrum Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 3.

Chemung beds Wellsville N.Y.

92 $\frac{22\,64}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 36, fig. 7.

Chemung beds Ischua N. Y.

Dictyospongia siraea Hall & Clarke

33 $\frac{2211}{1}$ TYPE. Dictyospongia siraea Hall & Clarke. New York state museum memoir 2. 1898. p. 73. pl. 42, fig. 4.

Chemung beds Cotton hill, near Avoca N. Y.

34 $\frac{2211}{2}$ TYPE: PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 42, fig. 5.

Chemung beds Avoca N. Y.

Dictyophyton amalthea *see* Rhabdosispongia amalthea

Dictyophyton annulatum *see* Ceratodictya annulata

Dictyophyton baculum *see* Prismodictya baculum

Dictyophyton catilliforme *see* Phragmodictya catilliformis

Dictyophyton cinctum *see* Ceratodictya cincta

Dictyophyton conradi *see* Prismodictya conradi

Dictyophyton cylindricum *see* Dictyospongia cylindrica

Dictyophyton fenestratum *see* Clathrospongia fenestrata

Dictyophyton filitextile *see* Prismodictya filitextile

Dictyophyton hamiltonense *see* Clathrospongia (?) hamiltonensis

Dictyophyton irregulare *see* Clathrospongia (?) irregularis

Dictyophyton nodosum *see* Hydnoceras nodosum

Dictyophyton parallelum *see* Prismodictya parallela

Dictyophyton patulum *see* Hydriodictya patula

Dictyophyton prismaticum *see* Prismodictya prismatica

Dictyophyton randalli *see* Thysanodictya randalli

Dictyophyton rude *see* Thysanodictya rudis

Dictyophyton sceptrum *see* Dictyospongia sceptrum

Dictyophyton telum *see* Prismodictya telum

Dictyophyton tenue *see* Tylodictya? tenuis

Dictyophyton tomaculum *see* Clathrospongia? tomaculum

Dictyophyton tuberosum *see* Hydnoceras barroisi

Dictyophyton tuberosum *see* Hydnoceras tuberosum

Dictyophytum ramosum *see* Botryodictya ramosa

Ectenodictya eccentrica *see* Acloeodictya (?) eccentrica

Ethmophyllum rarum *see* Archaeocyathellus rarus

Ethmophyllum rensselaericum *see* Archaeocyathellus rensselaericus

HALLODICTYA Hall & Clarke

Hallodictya cottoniana Hall & Clarke

95 $\frac{2280}{1}$ TYPE Hallodictya cottoniana Hall & Clarke. New York state museum memoir 2. 1898. p. 142, pl. 41, fig. 12.

Chemung beds Cotton hill, near Avoca N. Y.

Hallodictya sciensis Hall & Clarke

96 $\frac{2281}{1}$ PLASTOTYPE Hallodictya sciensis Hall & Clarke. New York state museum memoir 2. p. 140, pl. 36, fig 8.

Chemung beds Scio N. Y.

HELICODICTYA Hall & Clarke

Helicodictya (?) concordia Hall & Clarke

97 $\frac{2300}{1}$ PLASTOTYPE Helicodictya (?) concordia Hall & Clarke. New York state museum memoir 2. 1898. p. 115, pl. 27, fig. 2.

Chemung beds Concord station Pa.

Hyalostelia (?) marcellia *see* Dictyospongia (?) marcellia

HYDNOCERAS Conrad

Hydnoceras barroisi Hall & Clarke

98 $\frac{2320}{1}$ PLASTOTYPE Dictyophyton tuberosum Barrois. Annales de la Société géologique du nord. 11:82, pl. 1, fig. 1a–e.

Hydnoceras barroisi Hall & Clarke. New York state museum memoir 2. 1898. p. 147, pl. 46, fig. 3, 4.
Psammites du Condroz — Jeumont, Brittany (upper Devonic)

Hydnoceras bathense Hall & Clarke

99 $\frac{23}{1}\frac{21}{1}$ TYPE Hydnoceras bathense Hall & Clarke. New York state museum memoir 2. 1898. p. 101, pl. 3, fig. 3.
Chemung beds — Jenks quarry, Bath N. Y.

100 $\frac{23}{2}\frac{21}{1}$ TYPE: PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 8, fig. 4.
Chemung beds — Jenks quarry, Bath N. Y.
C. Van Deloo, coll. 1886

101 $\frac{23}{3}\frac{21}{1}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 9, fig. 1.
Chemung beds — Jenks quarry, Bath N. Y.

Hydnoceras botroedema Hall & Clarke

102 $\frac{23}{1}\frac{22}{2}$ TYPE Hydnoceras botroedema Hall & Clarke. New York state museum memoir 2. 1898. p. 102, pl. 2 fig. 4.
Chemung beds — Irish hill, near Bath N.Y.

Hydnoceras eutheles Hall & Clarke

103 $\frac{23}{1}\frac{23}{3}$ TYPE Hydnoceras eutheles Hall & Clarke. New York state museum memoir 2. 1898. p. 105, pl. 8, fig. 5.
Chemung beds — Cotton hill, near Avoca N. Y.

104 $\frac{23}{2}\frac{23}{3}$ TYPE: PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 8, fig. 6.
Chemung beds — Cotton hill, near Avoca N. Y.

105 $\frac{23}{3}\frac{23}{3}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 33, fig. 7.
Portage beds — Varysburg N. Y.
D. D. Luther, coll. 1897

Hydnoceras gracile Hall & Clarke

106 $\frac{23}{1}\frac{24}{1}$ TYPE Hydnoceras gracile Hall & Clarke. New York state museum memoir 2. 1898. p. 70, pl. 33, fig. 3.
Portage beds — Varysburg N. Y.
D. D. Luther, coll. 1897

107 $\frac{2324}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 33, fig. 4.
Portage beds Varysburg N. Y.
D. D. Luther, coll. 1897

Hydnoceras legatum Hall & Clarke

108 $\frac{2325}{1}$ TYPE: PLASTOTYPE Hydnoceras legatum Hall & Clarke. New York state museum memoir 2. 1898. p. 69, pl. 33, fig. 5.
Portage beds Naples N. Y.
D. D. Luther, coll. 1897

109 $\frac{2325}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 33, fig. 6.
Portage beds Varysburg N. Y.
D. D. Luther, coll. 1897

Hydnoceras lutheri Hall & Clarke

110 $\frac{2326}{1}$ PLASTOTYPE Hydnoceras lutheri Hall & Clarke. New York state museum memoir 2. 1898. p. 106, pl. 8, fig. 10.
Lower Chemung beds Segur's gully, Italy N. Y.
D. D. Luther, coll. 1897

Hydnoceras multinodosum Hall & Clarke

111 $\frac{2327}{1}$ TYPE: PLASTOTYPE Hydnoceras multinodosum Hall & Clarke. New York state museum memoir 2. 1898. p. 106, pl. 39, fig. 1.
Chemung beds Cotton hill, near Avoca N. Y.

Hydnoceras nodosum Hall

112 $\frac{2328}{1}$ PLASTOTYPE Dictyophyton nodosum Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 91, pl. 3, fig. 2.
Hydnoceras nodosum Hall & Clarke. New York state museum memoir 2. 1898. pl. 2, fig. 2.
Chemung beds Cattaraugus co. N. Y.

Hydnoceras tuberosum Conrad

113 $\frac{2329}{1}$ PLASTOTYPE Hydnoceras tuberosum Conrad. Journal of the Philadelphia academy of natural sciences. 1842. 8: 267, pl. 16, fig. 1.
Dictyophyton tuberosum Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 3, fig. 1.

Hydnoceras tuberosum Hall & Clarke. New York state museum memoir 2. 1898. pl. 4, fig. 2.
Chemung beds Near Addison N. Y.

114 $\frac{2329}{2}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 2, fig. 5.
Chemung beds Brown hill, near Cohocton N. Y.

115 $\frac{2329}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 1.
Chemung beds Brown hill, near Cohocton N. Y.
C. VanDeloo, coll. 1886

116 $\frac{2329}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 2.
Chemung beds. Brown hill, near Cohocton N. Y.
Ward and Howell purchase

117 $\frac{2329}{5}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 3, fig. 4.
Chemung beds Brown hill, near Cohocton N. Y.
Ward and Howell purchase

118 $\frac{2329}{6}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 5, fig. 3.
Chemung beds Brown hill, near Cohocton N. Y.
Ward and Howell purchase

119 $\frac{2329}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 5, fig. 4.
Chemung beds Brown hill, near Cohocton N. Y.

120 $\frac{2329}{8}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 7, fig. 2.
Chemung beds Brown hill, near Cohocton N. Y.

121 $\frac{2329}{9}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 8, fig. 2.
Chemung beds Brown hill, near Cohocton N. Y.

Hydnoceras variabile Hall & Clarke

122 $\frac{2330}{1}$ TYPE: PLASTOTYPE Hydnoceras variabile Hall & Clarke. New York state museum memoir 2. 1898. p. 108, pl. 36, fig. 1.
Lower Chemung beds Deyo basin, Naples N. Y
D. D. Luther, coll.

123 $\frac{2331}{1}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 37, fig. 5.
Lower Chemung beds Deyo basin, Naples N. Y.
D. D. Luther, coll.

HYDRIODICTYA Hall & Clarke

Hydriodictya cylix Hall & Clarke

¶24 $\frac{2340}{1}$ PLASTOTYPE Hydriodictya cylix Hall & Clarke. New York state museum memoir 2. 1898. p. 78, pl. 16, fig. 2.

Chemung beds — Deyo basin, Naples N. Y. D. D. Luther, coll.

Hydriodictya nephelia Hall & Clarke

¶25 $\frac{2341}{1}$ PLASTOTYPE Hydriodictya nephelia Hall & Clarke. New York state museum memoir 2. 1898. p. 79, pl. 21, fig. 10.

Chemung beds — Scio N. Y.

Hydriodictya patula Hall (sp.)

¶26 $\frac{2342}{1}$ TYPE Dictyophyton patulum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 469.

Hydriodictya patula Hall & Clarke. New York state museum memoir 2. 1898. pl. 4, fig. 1.

Chemung beds — Brown hill, near Cohocton N. Y. Ward and Howell purchase

HYPHANTAENIA Vanuxem

Hyphantaenia chemungensis Vanuxem (sp.)

¶27 $\frac{2360}{1}$ TYPE Uphantenia chemungensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 183, fig. 50.

Uphantaenia chemungensis Hall. 16th annual report of the New York state cabinet of natural history. 1863. Figure on p. 86.

Hyphantaenia chemungensis Hall & Clarke. New York state museum memoir 2. 1898. pl. 28, fig. 2.

Chemung beds — Near Owego, Tioga co. N. Y.

128 $\frac{2360}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 28, fig. 1.

Chemung beds — Near Owego, Tioga co. N. Y. S. W. Adamy purchase

129 $\frac{2360}{3}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 45, fig. 1.

Chemung beds — Union township, Broome co. N. Y.

LEBEDICTYA Hall & Clarke

Lebedictya crinita Hall & Clarke

130 $\frac{2380}{1}$ TYPE Lebedictya crinita Hall & Clarke. New York state museum memoir 2. 1898. p. 169, fig. 24.
Keokuk beds Crawfordsville Ind.

131 $\frac{2380}{2}$ TYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 58, fig. 1, 2.
Keokuk beds Crawfordsville Ind.
A. S. Tiffany purchase

132 $\frac{2380}{3}$ TYPE Hall & Clarke. New York state museum memoir 2. memoir 2. 1898. pl. 59, fig. 2.
Keokuk beds Crawfordsville Ind.
A. S. Tiffany purchase

LYRODICTYA Hall

Lyrodictya romingeri Hall

133 $\frac{2400}{1}$ TYPE Lyrodictya romingeri Hall. 35th annual report of the New York state museum of natural history. 1884. p. 476.
Hall & Clarke. New York state museum memoir 2. 1898. p. 170, fig. 25.
Keokuk beds Crawfordsville Ind.

MASTODICTYA Hall & Clarke

Mastodictya osculata Hall & Clarke

134 $\frac{2420}{1}$ TYPE Dictyospongia (Mastodictya) osculata Hall & Clarke. New York state museum memoir 2. 1898. p. 167, fig. 23.
Keokuk beds Crawfordsville Ind.

NEPHELIOSPONGIA Clarke

Nepheliospongia typica Clarke

135 $\frac{2440}{1}$ TYPE Nepheliospongia typica Clarke. New York state museum bulletin 39. 1900. p. 189, pl. 10, fig. 1.
Lower Chemung beds Deyo basin, Naples N. Y.
J. M. Clarke, coll.

136 $\frac{2440}{2}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 10, fig. 2, 3.
Lower Chemung beds Deyo basin, Naples N. Y.
J. M. Clarke, coll.

PHRAGMODICTYA Hall

Phragmodictya catilliformis Whitfield (sp.)

7 $\frac{2460}{1}$ HYPOTYPE Dictyophyton catilliforme Whitfield. American museum of natural history bulletin 1, 1881. p. 18.

Phragmodictya catilliformis Hall. 35th annual report of the New York state museum of natural history. 1884. p. 477, pl. (20) 21, fig. 2.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

138 $\frac{2460}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 173, fig. 26, 27, 28, 29, 30.

Keokuk beds Crawfordsville Ind.

139 $\frac{2460}{3}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (19) 20, fig. 2, 3.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 64, fig. 1, 2.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

140 $\frac{2460}{4}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 5.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 66, fig. 7.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

141 $\frac{2460}{5}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (17) 18, fig. 12, 13.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 66, fig. 8, 9.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

142 $\frac{2460}{6}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 6.

Hall & Clarke. New York state museum memoir 2. 1898. pl. 67, fig. 1, 2.

Keokuk beds Crawfordsville Ind.

C. Van Deloo, coll. 1867

143 $\frac{2460}{7}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 1.
Hall & Clarke. New York state museum memoir 2. 1898. pl. 68, fig. 3.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

144 $\frac{2460}{8}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 4.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

Phragmodictya (?) crebristriata Hall

145 $\frac{2461}{1}$ TYPE Phragmodictya (?) crebristriata Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (20) 21, fig. 7.
Hall & Clarke. New York state museum memoir 2. 1898. pl. 61, fig. 4.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

(?) Phragmodictya lineata Hall

146 $\frac{2462}{1}$ TYPE Phragmodictya lineata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 478, pl. (20) 21, fig. 8.
(?) Phragmodictya lineata Hall & Clarke. New York state museum memoir 2. 1898. pl. 68, fig. 5.
Keokuk beds Crawfordsville Ind.

PHYSOSPONGIA Hall

Physospongia alternata Hall

147 $\frac{2480}{1}$ TYPE Physospongia alternata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 481, pl. (19) 20, fig. 9.
Hall & Clarke. New York state museum memoir 2. 1898. pl. 62, fig. 11.
Keokuk beds Crawfordsville Ind.

Physospongia colletti Hall

148 $\frac{2481}{1}$ TYPE Physospongia colletti Hall. 35th annual report of the New York state museum of natural history. 1884. p. 480, pl. (19) 20, fig. 7.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

149 $\frac{2481}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 193, fig. 43, 44.
Keokuk beds Crawfordsville Ind.

150 $\frac{2481}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 63, fig. 5, 6.
Keokuk beds Crawfordsville Ind.

Physospongia dawsoni Whitfield (sp.)

151 $\frac{2482}{1}$ HYPOTYPE Uphantaenia dawsoni Whitfield. American journal of science. 3d ser. 1881. 22:132.
Physospongia dawsoni Hall & Clarke. New York state museum memoir 2. 1898. p. 189, fig. 38, 39, 40, 41, 42.
Keokuk beds Crawfordsville and Indian Creek Ind.

152 $\frac{2482}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 62, fig. 4.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

153 $\frac{2482}{3}$ HYPOTYPE Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (19) 20, fig. 6.
Hall & Clarke. New York state museum memoir 2. 1898. pl. 62, fig. 10.
Keokuk beds Crawfordsville Ind.
C. Van Deloo, coll. 1867

Physospongia multibursaria Hall & Clarke

154 $\frac{2483}{1}$ TYPE Physospongia multibursaria Hall & Clarke. New York state museum memoir 2. 1898. p. 196, fig. 45.
Keokuk beds Crawfordsville Ind.

PRISMODICTYA Hall & Clarke

Prismodictya allegania Hall & Clarke

155 $\frac{2484}{1}$ PLASTOTYPE Prismodictya allegania Hall & Clarke. New York state museum memoir 2. 1898. p. 84, pl. 20, fig. 4.
Chemung beds Scio N.Y.

Prismodictya aulophia Hall & Clarke

156 $\frac{2485}{1}$ PLASTOTYPE Prismodictya aulophia Hall & Clarke. New York state museum memoir 2. 1898. p. 88, pl. 20, fig. 7.
Chemung beds Wellsville N. Y

Prismodictya baculum Hall (sp.)

157 $\frac{2486}{1}$ TYPE Dictyophyton baculum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 471.

Prismodictya baculum Hall & Clarke. New York state museum memoir 2. 1898. pl. 18, fig. 3.

Chemung beds Wellsville N. Y.

Prismodictya cercidea Hall & Clarke

158 $\frac{2487}{1}$ PLASTOTYPE Prismodictya cercidea Hall & Clarke. New York state museum memoir 2. 1898. p. 89, pl. 20, fig. 1.

Chemung beds Wellsville N. Y.

Prismodictya cithara Hall & Clarke

159 $\frac{2488}{1}$ PLASTOTYPE Prismodictya cithara Hall & Clarke. New York state museum memoir 2. 1898. p. 90, pl. 35, fig. 3.

Chemung beds Scio N. Y.

160 $\frac{2488}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 35, fig. 1, 2.

Chemung beds Scio N. Y.

Prismodictya conradi Hall (sp.)

161 $\frac{2489}{1}$ TYPE Dictyophyton conradi Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 89, pl. 5, fig. 2; pl. 5a, fig. 2.

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. (17) 18, fig. 3, 4, 4a.

Prismodictya conradi Hall & Clarke. New York state museum memoir 2. 1898. pl. 18, fig. 4; pl. 19, fig. 5, 6.

Chemung beds Randolph N. Y.

Prismodictya filitextilis Hall (sp.)

162 $\frac{2490}{1}$ PLASTOTYPE Dictyophyton filitextile Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 88, pl. 4, fig. 5.

Prismodictya filitextilis Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 7.

Chemung beds Steuben county, N. Y.

163 $\frac{2490}{2}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 4.

Chemung beds Wellsville N. Y.

Prismodictya narthecia Hall & Clarke

164 $\frac{2491}{1}$ PLASTOTYPE Prismodictya narthecia Hall & Clarke. New York state museum memoir 2. 1898. p. 90, pl. 35, fig. 4, 5.
Chemung beds Scio N. Y.

Prismodictya palaea Hall & Clarke

165 $\frac{2492}{1}$ TYPE: PLASTOTYPE Prismodictya palaea Hall & Clarke. New York state museum memoir 2. 1898. p. 69, pl. 33, fig. 2.
Portage beds Naples N. Y.
D. D. Luther, coll. 1896

Prismodictya parallela Hall (sp.)

166 $\frac{2493}{1}$ PLASTOTYPE Dictyophyton parallelum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 471.
Prismodictya parallela Hall & Clarke. New York state museum memoir 2. 1898. pl. 19, fig. 4.
Chemung beds Southwestern New York

Prismodictya prismatica Hall (sp.)

167 $\frac{2494}{1}$ HYPOTYPE Dictyophyton prismaticum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 469.
Prismodictya prismatica Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 1.
Chemung beds Concord station Pa.

168 $\frac{2494}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 3.
Chemung beds Concord station Pa.

169 $\frac{2494}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 4.
Chemung beds Concord station Pa.

170 $\frac{2494}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 21, fig. 6.
Chemung beds Concord station Pa.

171 $\frac{2494}{5}$ HYPOTYPE: HYPOPLASTOTYPE Prismodictya cf. prismatica Hall & Clarke. New York state museum memoir 2. 1898. pl. 42, fig. 6.
Lower Chemung beds Italy N. Y.

Prismodictya telum Hall (sp.)

172 $\frac{2495}{1}$ PLASTOTYPE Dictyophton telum Hall. 35th annual report of the New York state museum of natural history. 1884. p. 470.

Prismodictya telum Hall & Clarke. New York state museum memoir 2. pl. 17, fig. 3.

Chemung beds Wellsville N. Y.

Protocyathus rarus *see* Archaeocyathellus rarus.

RHABDOSISPONGIA Hall & Clarke

Rhabdosispongia amalthea Hall (sp.)

173 $\frac{2500}{1}$ PLASTOTYPE Dictyophyton amalthea Hall. 9th annual report of the New York state geologist. 1890. p. 58.

Rhabdosispongia amalthea Hall & Clarke. New York state museum memoir 2. 1898. pl. 16, fig. 1.

Chemung beds Great Bend Pa.

SPHAERODICTYA Hall & Clarke

Sphaerodictya subsphaerica Walcott (sp.)

174 $\frac{2520}{1}$ HYPOTYPE Cyathophycus subsphaericus Walcott. Transactions of the Albany institute. 1879. 10:19.

Sphaerodictya subsphaerica Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 16, 17.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

175 $\frac{2520}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 18, 22.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

176 $\frac{2520}{3}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 19.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

177 $\frac{2520}{4}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 20.

Utica slate Holland Patent N. Y.

W. P. Rust purchase. 1890

178 $\frac{2520}{5}$ HPYOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 1, fig. 21.

Utica slate Holland Patent N. Y.

THYSANODICTYA Hall & Clarke

Thysanodictya apleta Hall & Clarke

179 $\frac{25}{1}\frac{40}{}$ TYPE: PLASTOTYPE Thysanodictya apleta Hall & Clarke. New York state museum memoir 2. 1898. p. 135, pl. 26, fig. 1.
Chemung beds Alfred N. Y.

180 $\frac{25}{2}\frac{40}{}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 27, fig. 8.
Chemung beds Alfred N. Y.

Thysanodictya hermenia Hall & Clarke

181 $\frac{25}{1}\frac{41}{}$ PLASTOTYPE Thysanodictya hermenia Hall & Clarke. New York state museum memoir 2. 1898. p. 133, pl. 27, fig. 7.
Chemung beds Alfred N. Y.

182 $\frac{25}{2}\frac{41}{}$ PLASTOTYPE Hall & Clarke. York state museum memoir 2. 1898. pl. 39, fig. 2.
Chemung beds Hinsdale N. Y.

183 $\frac{25}{3}\frac{41}{}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 40, fig. 3.
Chemung beds Hinsdale N. Y.

Thysanodictya poecilus Hall & Clarke

184 $\frac{25}{1}\frac{42}{}$ PLASTOTYPE Thysanodictya poecilus Hall & Clarke. New York state museum memoir 2. 1898. p. 127, pl. 24, fig. 11.
Chemung beds Scio N. Y.

Thysanodictya randalli Hall (sp.)

185 $\frac{25}{1}\frac{42}{}$ TYPE Dictyophyton randalli Hall. 9th annual report of the New York state geologist. 1890. p. 57.
Thysanodictya randalli Hall & Clarke. New York state museum memoir 2. 1898. pl. 24, fig. 12.
Chemung beds Warren Pa.

Thysanodictya rudis Hall (sp.)

186 $\frac{25}{1}\frac{44}{}$ TYPE Dictyophyton rude Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 90, pl. 5, fig. 3.
Thysanodictya rudis Hall & Clarke. New York state museum memoir 2. 1898. pl. 23, fig. 6.
Chemung beds Little Genesee N. Y.

187 $\frac{25}{3}\frac{44}{}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 19, fig. 7.
Chemung beds Wellsville N. Y.

188 $\frac{25}{3}\frac{44}{}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 23, fig. 1.
Chemung beds Ischua, Cattaraugus co. N. Y.

Thysanodictya saccus Hall & Clarke

189 $\frac{25}{1}\frac{45}{}$ PLASTOTYPE Thysanodictya saccus Hall & Clarke. New York state museum memoir 2. 1898. p. 130, pl. 25, fig. 1, 2.
Chemung beds Whitesville, Allegany co. N. Y.

TYLODICTYA Hall & Clarke

Tylodictya (?) tenuis Hall (sp.)

190 $\frac{25}{1}\frac{60}{}$ HYPOPLASTOTYPE Dictyophyton tenue Hall. 35th annual report of the New York state museum of natural history. 1884. p. 474.
Tylodictya (?) tenuis Hall & Clarke. New York state museum memoir 2. 1898. pl. 53, fig. 4.
Waverly beds Warren Pa.

Tylodictya warrenensis Hall & Clarke

191 $\frac{25}{1}\frac{61}{}$ PLASTOTYPE Tylodictya warrenensis Hall & Clarke. New York state museum memoir 2. 1898. p. 151, fig. 18.
Waverly beds Warren Pa.

Uphantenia chemungensis *see* Hyphantaenia chemungensis

Uphantaenia dawsoni *see* Hyphantaenia dawsoni

CNIDARIA

ACERVULARIA Schweigger

Acervularia inequalis Hall & Whitfield

192 $\frac{20}{1}\frac{00}{}$ TYPE Acervularia inequalis Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 233, pl. 9, fig. 11.
Upper Devonic Lime creek, Hackberry Grove near Rockford Ia.
R. P. Whitfield, coll. 1866

193 $\frac{2000}{3}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 9, fig. 12.
Upper Devonic Hackberry Grove, near Rockford Ia.
R. P. Whitfield, coll. 1866.

Acervularia davidsoni *see* Prismatophyllum davidsoni

ALVEOLITES Lamarck

Alveolites rockfordensis Hall & Whitfield

194 $\frac{2020}{1}$ TYPE Alveolites rockfordensis Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 229. (not figured)
Upper Devonic Lime creek, Hackerry Grove near Rockford Ia.
R. P. Whitfield, coll. 1866.

Astrea rugosa *see* Phillipsastrea rugosa

AULOPORA Goldfuss

Aulopora annectens Clarke

195 $\frac{2025}{1}$ PLASTOTYPE Aulopora annectens Clarke. U.S. geological survey bulletin 16. 1885. p. 63, pl. 3, fig. 15.
Naples beds Canandaigua lake, N. Y.

Aulopora elongata Hall

196 $\frac{2040}{1}$ TYPE Aulopora elongata Hall. 32d annual report of the New York state museum of natural history. 1879. p. 143.
Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 14.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 14.
New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

197 $\frac{2040}{3}$ TYPE Aulopora subtenuis Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 19, 20.
Aulopora elongata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 19, 20.
New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

Aulopora iowensis Hall & Whitfield

198 $\frac{3041}{1}$ TYPE Aulopora iowensis Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 235, pl. 10, fig. 5.

Upper Devonic Marly beds at Hackberry Grove Ia.
R. P. Whitfield, coll. 1866

Aulopora saxivadens Hall & Whitfield (*recte*)

199 $\frac{3042}{1}$ TYPE Aulopora saxivadum Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 235, pl. 10, fig. 6.

Upper Devonic Lime creek, Hackberry Grove near Rockford Ia.
R. P. Whitfield, coll. 1866

Aulopora schohariae Hall

200 $\frac{3043}{1}$ TYPE Aulopora schohariae Hall. 26th annual report of the New York state museum of natural history. 1874. p. 110.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 5.

New Scotland beds Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Thamniscus variolata Pal. N.Y. v. 6, pl. 22, fig. 46.

201 $\frac{3043}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. pl. 2, fig. 6.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Fenestella coronis. Pal. N.Y. v. 6, pl. 21, fig. 11.

Aulopora subtenuis Hall

202 $\frac{3044}{1}$ TYPE Aulopora subtenuis Hall. 32d annual report of the New York state museum of natural history. 1879. p. 143.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 9.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

$\frac{30144}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 10.

Helderbergian Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

$\frac{30144}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 11.

New Scotland beds Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

$\frac{30144}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Thamniscus variolatus. Pal. N. Y. v. 6, pl. 22, fig. 46.

$\frac{30144}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 13.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Fenestella coronis. Pal. N. Y. v. 6, pl. 21, fig. 11.

$\frac{30144}{6}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 15, 16.

Helderbergian Near Clarksville N. Y.

Aulopora subtenuis *see* Aulopora elongata

Aulopora tubula Hall

208 $\frac{3045}{1}$ TYPE Aulopora tubula Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 7.

New Scotland beds — Schoharie county, N. Y. J. Gebhard purchase

209 $\frac{3045}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 8.

New Scotland beds — Schoharie county, N. Y. J. Gebhard purchase

BLOTHROPHYLLUM Billings

Blothrophyllum conatum Hall

210 $\frac{3060}{1}$ TYPE Cyathophyllum conatum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig 3, 4.

Blothrophyllum conatum. New York state museum memoir (unpublished). pl. 16, fig. 25, 26.

Hamilton beds — Moscow, Livingston co. N. Y.

211 $\frac{3060}{2}$ TYPE Cyathophyllum conatum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 5.

Hamilton beds — York, Livingston co. N. Y.

212 $\frac{3060}{3}$ TYPE Cyathophyllum conatum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 11, 12.

Blothrophyllum conatum. New York state museum memoir (unpublished). pl. 16, fig. 20, 23.

Hamilton beds — Western New York Geological survey collection

BOLBOPORITES Pander

Bolboporites americanus Billings

213 $\frac{3080}{1}$ HYPOTYPE Chaetetes sp. indet. Hall. Paleontology of New York. 1847. 1:18, pl. 4, fig. 7.

Bolboporites americanus Billings. Canadian naturalist and geologist. 1859. 4:429.

Chazy limestone — Chazy, Clinton co. N. Y.

Buthotrephis? asteroides *see* Dactyloidites asteroides

Campophyllum nanum *see* Charactophyllum nanum

CAUNOPORA[1] Lonsdale

Caunopora planulata Hall & Whitfield

214 $\frac{31100}{1}$ TYPE Caunopora planulata Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 228, pl. 9, fig. 2.

Upper Devonic — Marly beds at Hackberry Grove near Rockford Ia.

R. P. Whitfield, coll. 1866

CERATOSTIGMA Clarke

Ceratostigma papillata Clarke

215 $\frac{31120}{1}$ TYPE Ceratostigma papillata Clarke. 13th annual report of the New York state geologist. 1894. 1:178, pl. 3, fig. 3, 4, 6.

Hamilton shales — Livonia salt shaft, Livingston co. N. Y.

D. D. Luther, coll. 1891

216 $\frac{31120}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 3, fig. 5.

Hamilton shales — Livonia salt shaft, Livingston co. N. Y.

D. D. Luther, coll. 1891

217 $\frac{31120}{3}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 3, fig. 7.

Hamilton shales — Livonia salt shaft, Livingston co. N. Y.

D. D. Luther, coll. 1891

CHAETETES Fischer

Chaetetes (Monotrypella) abruptus Hall

218 $\frac{31140}{1}$ TYPE Chaetetes abruptus Hall. 32d annual report of the New York state museum of natural history. 1879. p. 148.

Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 9.

Chaetetes (Monotrypella) abruptus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 9.

Near Scotland beds — Schoharie county, N. Y.

J. Gebhard purchase

219 $\frac{31140}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 11.

Helderbergian — Schoharie N. Y.

[1] It is recognized that this name covers commensal organisms.

Chaetetes (Monotrypella) arbusculus Hall & Simpson

220 3141/1 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 1, 7.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 12, pl. 9, fig. 1, 7.
Manlius limestone — Schoharie county, N. Y.
J. Gebhard purchase

221 3141/2 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 2.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 2.
Manlius limestone — Schoharie county, N. Y.
J. Gebhard purchase

222 3141/3 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 4.
Chaetetes (Monotrypella) arbusculus? Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 4.
Manlius limestone — Schoharie county, N. Y.
J. Gebhard purchase

223 3141/4 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 3.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 3.
Manlius limestone — Schoharie N. Y.

224 3141/5 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 5, 6.
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 5, 6.
Manlius limestone — Schoharie county N. Y.
J. Gebhard purchase

225 3141/6 TYPE Chaetetes fruticosus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 8
Chaetetes (Monotrypella) arbusculus Hall & Simpson. Paleontology of New York. 1887
v. 6, pl. 9. fig. 8. — Schoharie county N. Y
New Scotland beds — J. Gebhard purchas

Chaetetes fruticosus *see* Chaetetes arbusculu

Chaetetes lycoperdon ? Hall

3142/1 HYPOTYPE Chaetetes lycoperdon? Hall. Paleontology of New York. 1847. 1:64, pl. 12, fig. 3.

Lowville limestone Watertown, Jefferson co. N. Y.

Chaetetes sphaerica *see* Favosites sphaericus

Chaetetes tabulatus *see* Ptychonema tabulatum

Chaetetes sp. indet. *see* Bolboporites americanus

CHARACTOPHYLLUM Simpson

Charactophyllum nanum Hall & Whitfield (sp.)

3160/1 HYPOTYPE Campophyllum nanum Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 232.

Charactophyllum nanum Simpson. New York state museum bulletin 39. 1900. v. 8, p. 210, fig. 28.

Upper Devonic Hackberry Grove, near Rockford Ia.

CHAUNOGRAPTUS Hall

Chaunograptus novellus Hall

3170/1 TYPE Dendrograptus (s. g. Chaunograptus) novellus Hall. Transactions of the Albany institute. 1879. 10:2.

Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 2.

Niagaran Waldron Ind.

CLADOPORA Hall

Cladopora magna Hall & Whitfield

3180/1 TYPE Cladopora magna Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 230, pl. 10, fig. 3.

Middle Devonic Near Waterloo Ia.

R. P. Whitfield, coll. 1866

3180/2 TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 10, fig. 4.

Middle Devonic Near Waterloo Ia.

R. P. Whitfield, coll. 1866

Cladopora palmata Hall & Whitfield

3181/1 TYPE Cladopora palmata Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 231, pl. 10, fig. 1.

Middle Devonic Near Waterloo Ia.

R. P. Whitfield, coll. 1866

Cladopora smicra Clarke

232 $\frac{31}{1}\frac{82}{}$ TYPE Cladopora smicra Clarke. New York state museum memoir 3. 1900. v. 3, p. 63, pl. 9, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.

233 $\frac{3182}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 4, 6.
Oriskanian Becraft mountain, Hudson N. Y.

234 $\frac{3182}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

Cladopora styphelia Clarke

235 $\frac{3183}{1}$ TYPE: PLASTOTYPE Cladopora styphelia Clarke. New York state museum memoir 3. 1900. v. 3, p. 64, pl. 9, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.

236 $\frac{3183}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. v. 3, pl. 9, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.

CLISIOPHYLLUM Dana

Clisiophyllum oneidaense Billings

237 $\frac{3200}{1}$ HYPOTYPE Clisiophyllum oneidaense Billings. Canadian journal of industry, science and art. 1859. 4 : 128.
Simpson. New York state museum bulletin 39. 1900. v. 8, p. 212, fig. 32.
Onondaga limestone Cayuga, Ontario

COLEOPHYLLUM Hall

Coleophyllum romingeri Hall

238 $\frac{3220}{1}$ PLASTOTYPE Coleophyllum romingeri Hall. 12th annual report of the Indiana state geologist. 1883. p. 317, pl. 24, fig. 8, 9.
New York state museum memoir (unpublished). pl. 32, fig. 10, 11.
Onondaga limestone Falls of the Ohio, Ky.

CYATHOPHYLLUM Goldfuss

Cyathophyllum conatum *see* Blothrophyllum conatum

Cyathophyllum galerum Hall

239 $\frac{32410}{1}$ TYPE Cyathophyllum galerum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 32, fig. 21, 22, 23.

New York state museum memoir (unpublished). pl. 19, fig. 25, 26, 27.

Hamilton beds Moscow, Livingston co. N. Y.

Cyathophyllum hydraulicum (Simpson) Grabau

240 $\frac{32411}{1}$ TYPE: PLASTOTYPE Cyathophyllum hydraulicum Grabau. Geological society of America bulletin. 9:21, fig. 1a.

Manlius dolomite Buffalo N. Y.
A. W. Grabau, donor

241 $\frac{32411}{2}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1b.

Manlius dolomite Buffalo N. Y.
A. W. Grabau, donor

242 $\frac{32411}{3}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1c.

Manlius dolomite Buffalo N. Y.
A. W. Grabau, donor

243 $\frac{32411}{4}$ TYPE: PLASTOTYPE Grabau. Geological society of America bulletin. 9:21, fig. 1d.

Manlius limestone Buffalo N. Y.
A. W. Grabau, donor

Cyathophyllum nanum Hall

244 $\frac{32412}{1}$ TYPE Cyathophyllum nanum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 22, fig. 12, 13; pl. 31, fig. 14.

New York state museum memoir (unpublished). pl. 16, fig. 13, 14, 15.

Hamilton beds Moscow, Livingston co. N. Y.

Cyathophyllum palum Hall

244 $\frac{32413}{1}$ TYPE Cyathophyllum palum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 31, fig. 17, 18.

New York state museum memoir (unpublished). pl. 16, fig. 16, 17.

Hamilton beds York, Livingston co. N. Y.

Cyathophyllum rugosum *see* Prismatophyllum rugosum

CYLINDROPHYLLUM Simpson

Cylindrophyllum elongatum Simpson

246 $\frac{3260}{1}$ TYPE Cylindrophyllum elongatum Simpson. New York state museum bulletin 39. 1900. p. 217, fig. 42.

Onondaga limestone Clarksville, Albany co. N. Y.
J. W. Hall, coll. 1877

CYSTIPHYLLUM Lonsdale

Cystiphyllum varians Hall

247 $\frac{3280}{1}$ TYPE Cystiphyllum varians Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 29, fig. 1, 2.

Hamilton shales York, Livingston co. N. Y.

248 $\frac{3280}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 29, fig. 3, 4.

Hamilton shales York N. Y.

249 $\frac{3280}{3}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 29, fig. 5.

Hamilton shales Moscow, Livingston co. N. Y.
C. Van Deloo, coll. 1865

259 $\frac{3280}{4}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 29, fig. 10, 11.

Hamilton shales Moscow N. Y.
C. Van Deloo, coll. 1865

DACTYLOIDITES Hall

Dactyloidites asteroides Fitch (sp.)

251 $\frac{3300}{1}$ HYPOTYPE (Type of Hall's species). Buthotrephis? asteroides Fitch. Transactions of the New York state agricultural society for 1849. 9: 101.

Dactyloidites bulbosus Hall. 39th annual report of the New York state museum of natural history. 1886. pl. 11, fig. 1.

Georgian Middle Granville, Washington co. N. Y.
Rev. J. E. Baker, donor

252 $\frac{3300}{2}$ HYPOTYPE (Type of Hall's species). Dactyloidites bulbosus Hall. 39th annual report of the New York state museum of natural history. 1886. pl. 11, fig. 1.

Georgian Middle Granville N.Y.
Rev. J. E. Baker, donor

3300/3 HYPOTYPE Dactyloidites asteroides Walcott. 10th annual report of the director of the U. S. geological survey. 1890. pl. 57, fig. 2.
Georgian Middle Granville N. Y.

Dactyloidites bulbosus *see* Dactyloidites asteroides

DIDYMOGRAPTUS McCoy

Didymograptus sagitticaulis Gurley

3320/1 TYPE Graptolithus sagittarius (Hisinger) Hall. Paleontology of New York. 1847. v. 1, p. 272, pl. 74, fig. 1a.
Trenton beds (Normans kill shale)
Kenwood, Albany N. Y.

DIPLOGRAPTUS McCoy

Diplograptus foliaceus Murchison

3340/1 HYPOTYPE Graptolithus foliaceus Murchison. The Silurian system. pt 2. 1839. p. 695.

Diplograptus pristis Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 1.
Lower Trenton beds (Normans kill shale)
Glenmont, Albany co. N. Y.
C. Van Deloo, coll. 1883

Diplograptus pristis *see* Diplograptus foliaceus

DITOECHOLASMA Simpson

Ditoecholasma fanninganum Safford (sp.)

3360/1 HYPOTYPE Petraia fanningana Safford. Geology of Tennessee. 1869. p. 32c.

Ditoecholasma fanninganum Simpson. New York state museum bulletin 39. 1900. p. 201, fig. 5.
Helderbergian or Niagaran Perry county, Tenn.

3360/.2 HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 201, fig. 6.
Helderbergian or Niagaran Perry county, Tenn.

ENTEROLASMA Simpson

Enterolasma strictum Hall (sp.)

3380/1 TYPE Streptelasma (Petraia) stricta Hall. 26th annual report of the New York state museum of natural history. 1874. p. 114.

Streptelasma strictum Hall. 2d annual report of the New York state geologist. 1883. pl. 1, fig. 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 1, fig. 2.

Enterolasma strictum New York state museum memoir (unpublished). pl. 12, fig. 16.

New Scotland beds Near Clarksville, Albany co. N. Y.

259 $\frac{3380}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 1, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 1, fig. 9.

New York state museum memoir (unpublished). pl. 12, fig. 28.

New Scotland beds Albany co. N. Y.

Enterolasma waynense Safford (sp.)

260 $\frac{3381}{1}$ HYPOTYPE Petraia waynensis Safford. Geology of Tennessee. 1869. p. 314.

Enterolasma waynense Simpson. New York state museum bulletin 39. 1900. p. 204, fig. 13.

Helderbergian or Niagaran Near Clarksville N. Y. J. Hall & C. E. Beecher, coll. 1885

261 $\frac{3381}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 204, fig. 14.

Helderbergian or Niagaran Perry county, Tenn.

262 $\frac{3381}{3}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 204, fig. 15.

Helderbergian or Niagaran Perry county, Tenn.

Eridophyllum simcoense *see* Synaptophyllum simcoense

ERIDOPHYLLUM Milne-Edwards & Haime

Eridophyllum rugosum Milne-Edwards & Haime

263 $\frac{3400}{1}$ HYPOTYPE Eridophyllum rugosum Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 38.

Niagaran Falls of the Ohio, Ky.

FAVOSITES Lamarck

Favosites arbusculus Hall

264 $\frac{3420}{1}$ TYPE Favosites arbuscula Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 36, fig. 5.

Hamilton beds Canandaigua lake, Ontario co. N. Y.

Favosites forbesi var. **occidentalis** Hall

265 $\frac{34200a}{1}$ HYPOTYPE Favosites forbesi var. occidentalis Hall. 28th annual report of the New York state museum. 1879. p. 109.

Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 11.

Niagaran Waldron Ind.

266 $\frac{34200a}{2}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 12.

Niagaran Waldron Ind.

267 $\frac{34200a}{3}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 13.

Niagaran Waldron Ind.

268 $\frac{34200a}{4}$ HYPOTYPE Hall. 11th annual report of the state geologist of Indiana. 1882. pl. 1, fig. 14.

Niagaran Waldron Ind.

Favosites helderbergiae Hall

269 $\frac{3421}{1}$ TYPE Favosites helderbergiae Hall. 26th annual report of the New York state museum of natural history. 1874. p. 111.

Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 3.

New Scotland beds Near Clarksville, Albany co. N. Y.
L. E. Brown and C. Van Deloo, coll. 1876

270 $\frac{3421}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 4.

New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876

271 $\frac{3421}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 5, 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 5, 6.

New Scotland beds Near Clarksville N. Y.

272 $\frac{3421}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 6, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 6, fig. 7.

New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 187

Favosites niagarensis ? Hall

273 $\frac{34}{1}\frac{22}{}$ HYPOTYPE Favosites niagarensis Hall. Paleontology of New York. 1852. v. 2, pl. 73, fig. 1a.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

274 $\frac{34}{2}\frac{22}{}$ HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 73, fig. 1c.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Favosites proximus Hall

275 $\frac{34}{1}\frac{23}{}$ TYPE Favosites proximus Hall. 32d annual report of the New York state museum of natural history. 1879. p. 147.

Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 13.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

276 $\frac{34}{2}\frac{23}{}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 14.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

Favosites sphaericus Hall

277 $\frac{34}{1}\frac{24}{}$ TYPE Chaetetes sphaerica Hall. 26th annual report of the New York state museum of natural history. 1874. p. 111.

Favosites sphaericus Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 4.

New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

$\frac{3424}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 7.

Coeymans limestone — Schoharie county, N. Y. J. Gebhard purchase

$\frac{3424}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 7, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 7, fig. 9.

New Scotland beds — Schoharie county, N. Y. J. Gebhard purchase

Graptolithus foliaceus *see* Diplograptus foliaceus

Graptolithus sagittarius *see* Didymograptus sagitticaulis

Graptolithus subtenuis *see* Leptograptus subtenuis

Graptolithus tenuis *see* Leptograptus subtenuis

HELIOPHYLLUM Hall

Heliophyllum halli var. reflexum *see* Heliophyllum reflexum

Heliophyllum irregulare Hall

30 $\frac{3440}{1}$ TYPE Heliophyllum irregulare Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 1, 2.

New York state museum memoir (unpublished). pl. 25, fig. 3, 4.

Hamilton beds — Darien Center, Genesee co. N. Y. C. A. White, coll. 1860

31 $\frac{3440}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 3, 4, 5.

New York state museum memoir (unpublished). pl. 25, fig. 1, 2.

Hamilton beds — Western New York

32 $\frac{3440}{3}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 24, fig. 6.

New York state museum memoir (unpublished). pl. 25, fig. 5.

Hamilton beds — Darien, Genesee co. N. Y. C. Van Deloo, coll. 1865

Heliophyllum reflexum Hall

283 $\frac{3441}{1}$ TYPE Heliophyllum halli var. reflexum Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 23, fig. 6.

Heliophyllum reflexum. New York state museum memoir (unpublished). pl. 25, fig. 17.

Hamilton beds — York, Livingston co. N. Y. C. Van Deloo, coll. 1865

284 $\frac{3441}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 23, fig. 8, 9, 10, 11.

New York state museum memoir (unpublished). pl. 25, fig. 14, 15, 16.

Hamilton beds — Livingston county, N. Y.

KIONELASMA Simpson

Kionelasma herzeri Hall (sp.)

285 $\frac{3460}{1}$ HYPOTYPE Zaphrentis herzeri Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 35.

Kionelasma herzeri Simpson. New York state museum bulletin 39. 1900. p. 208, fig. 25.

Ulsterian — Louisville Ky.

Kionelasma mammiferum Hall (sp.)

286 $\frac{3461}{1}$ HYPOTYPE Streptelasma mammiferum Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 21.

Kionelasma mammiferum Simpson. New York state museum 39. 1900. p. 208, fig. 23.

Ulsterian — Falls of the Ohio, Ky.

287 $\frac{3461}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 208, fig. 24.

Ulsterian — Falls of the Ohio, Ky.

LACCOPHYLLUM Simpson

Laccophyllum acuminatum Simpson

288 $\frac{3480}{1}$ TYPE Laccophyllum acuminatum Simpson. New York state museum bulletin 39. 1900. p. 202, fig. 8.

Niagaran or Helderbergian — Perry county, Tenn.

289 $\frac{3480}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 202, fig. 9.

Niagaran or Helderbergian — Perry county, Tenn.

LEPTOGRAPTUS Lapworth

Leptograptus subtenuis Hall (sp.)

290 $\frac{35\,00}{1}$ TYPE Graptolithus tenuis (Portlock) Hall. Paleontology of New York. 1847. 1:272, pl. 74, fig. 2a.

Graptolithus subtenuis Hall. Miller's American Paleozic fossils. 1877. p. 244.

Trenton beds Kenwood, Albany N. Y.
(Normans kill shale)

On same slab with D. sagitticaulis, Pal. N. Y. v. 1, pl. 74, fig. 1a.

LOPHOLASMA Simpson

Lopholasma carinatum Simpson

291 $\frac{35\,20}{1}$ TYPE Lopholasma carinatum Simpson. New York state museum bulletin 39. 1900. p. 206, fig. 19.

Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

292 $\frac{35\,20}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 206, fig. 20.

Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

293 $\frac{35\,20}{3}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 207, fig. 22.

Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

MENISCOPHYLLUM Simpson

Meniscophyllum minutum Simpson

294 $\frac{35\,40}{1}$ TYPE Meniscophyllum minutum Simpson. New York state museum bulletin 39. 1900. p. 200, fig. 2.

Kinderhook beds Rockford Ind.

295 $\frac{35\,40}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 200, fig. 3.

Kinderhook beds Rockford Ind.

296 $\frac{35\,40}{3}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 200, fig. 4.

Kinderhook beds Rockford Ind.

MICHELINIA De Koninck

Michelinia lenticularis Hall

297 $\frac{35\,60}{1}$ TYPE Michelinia lenticularis Hall. 26th annual report of the New York state museum of natural history. 1874. p. 113.

Hall. 2d annual report of the New York state geologist. 1883. pl. 3, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 3, fig. 5.

New Scotland beds — Schoharie county, N. Y.
J. Gebhard purchase

PACHYPHYLLUM Milne-Edwards & Haime

Pachyphyllum woodmani White (sp.)

298 $\frac{3550}{1}$ HYPOTYPE Smithia woodmani White. Geological report of Iowa. 1870. 1 : 188.

Pachyphyllum woodmani Hall. 23d annual report of the New York state cabinet of natural history. 1873. pl. 9, fig. 9.

Upper Devonic — Rockford (Lime creek) Ia.

Petraia fanningana *see* Ditoecholasma fanninganum

Petraia waynense *see* Enterolasma waynense

PHILLIPSASTRAEA d'Orbigny

Phillipsastrea rugosa Hall

299 $\frac{3600}{1}$ TYPE Astrea rugosa Hall. Geology of New York; report on the 4th district. 1843. p. 159, fig. 2.

Phillipsastrea rugosa New York state museum memoir (unpublished). pl. 35, fig. 4.

Onondaga limestone — Leroy, Genesee co. N. Y.
Geological survey collection

Phytopsis cellulosum *see* Tetradium cellulosum

PLACOPHYLLUM Simpson

Placophyllum tabulatum Simpson

300 $\frac{3620}{1}$ TYPE Placophyllum tabulatum Simpson. New York state museum bulletin 39. 1900. p. 216, fig. 41.

Onondaga limestone — Walpole Ont.
C. D. Walcott, coll. 1878

PLUMALINA Hall

Plumalina densa Hall

301 $\frac{3630}{1}$ TYPE Plumalina densa Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 6.

Chemung beds — Belvidere, Allegany co. N. Y.

Plumalina plumaria Hall

3631/1 TYPE Filicites ? Hall. Geology of New York; report on the 4th district. 1843. expl. pl. 68.

Plumalina plumaria Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 1.

Ithaca beds — Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870.

3631/2 TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 2.

Ithaca beds — Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

3631/3 TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 3

Ithaca beds. — Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

3631/4 TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 4.

Ithaca beds — Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

3631/5 TYPE Hall. 30th annual report of the New York state museum. 1878. pl. 4, fig. 5.

Ithaca beds — Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

PRISMATOPHYLLUM Simpson

Prismatophyllum davidsoni Hall (sp.)

3640/1 HYPOTYPE Acervularia davidsoni? Hall. Geology of Iowa. 1858. v. 1, pt 2, p. 476.

Prismatophyllum davidsoni Simpson. New York state museum bulletin 39. 1900. p. 219, fig. 43.

Middle Devonic — Iowa

Prismatophyllum rugosum Milne-Edwards & Haime (sp.)

3641/1 HYPOTYPE Cyathophyllum rugosum Milne-Edwards & Haime. Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 387.

Prismatophyllum rugosum Simpson. New York state museum bulletin 39. 1900 p. 219, fig. 44.

Onondaga limestone — Falls of the Ohio, Ky.

3641/2 HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 220, fig. 45.

Onondaga limestone — Falls of the Ohio, Ky.

PTYCHONEMA Hall

Ptychonema tabulatum Hall

310 $\frac{3660}{1}$ TYPE Chaetetes tabulatus Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 37, fig. 16, 17, 18, 19.

Chaetetes? tabulatus Hall. 2d annual report of the New York state geologist. 1883. pl. 9, fig. 12, 13, 14, 15.

Ptychonema tabulatum Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 9, fig. 12, 13, 14, 15.

Coralline (Cobleskill) limestone ? Schoharie co. N. Y.

PTYCHOPHYLLUM Milne-Edwards & Haime

Ptychophyllum striatum Hall

311 $\frac{3670}{1}$ TYPE Ptychophyllum striatum Hall. 35th annual report of the New York state museum. 1884. p. 426, pl. 25, fig. 6, 7, 8.

Onondaga limestone Cayuga Ont.
J. DeCew, coll. 1866

SCENOPHYLLUM Simpson

Scenophyllum conigerum Rominger (sp.)

312 $\frac{3680}{1}$ HYPOTYPE Zaphrentis conigera Rominger. Geological survey of Michigan. 1876. v. 8, pt 2, p. 149.

Scenophyllum conigerum Simpson. New York state museum bulletin 39. 1900. p. 211, fig. 30.

Onondaga limestone Falls of the Ohio, Ky.

313 $\frac{3680}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 212, fig. 31.

Onondaga limestone Falls of the Ohio, Ky.

SCHOENOPHYLLUM Simpson

Schoenophyllum aggregatum Simpson

314 $\frac{3700}{1}$ TYPE Schoenophyllum aggregatum Simpson. New York state museum bulletin 39. 1900. p. 215, fig. 39.

St Louis limestone Glasgow Junction, Barren co. Ky.

315 $\frac{3700}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 215, fig. 40.

St Louis limestone Glasgow Junction, Barren co. Ky.

SMITHIA Milne-Edwards & Haime

Smithia johannis Hall & Whitfield

3720/1 TYPE Smithia johanni Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 234, pl. 9, fig. 10.

Upper Devonic — Marly beds at Hackberry near Rockford Ia.
R. P. Whitfield, coll. 1866

Smithia multiradiata Hall & Whitfield

3721/1 TYPE Smithia multiradiata Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 234 (not figured).

Upper Devonic — Marly beds at Hackberry near Rockford Ia.
R. P. Whitfield, coll. 1866

Smithia woodmani *see* Pachyphyllum woodmani

STEREOLASMA Simpson

Stereolasma rectum Hall

3740/1 HYPOTYPE Strombodes ? rectus Hall. Geology of New York; report on the 4th district. 1843. p. 209.

Streptelasma recta Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 19, fig. 9.

Stereolasma rectum. New York state museum memoir (unpublished). pl. 3, fig. 5.

Hamilton beds — Hamburg-on-the-Lake N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

3740/2 HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 205, fig. 17.

Hamilton beds — Hamburg-on-the-Lake, N. Y.
C. A. White, coll. 1860

3740/3 HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 205, fig. 16.

Hamilton beds — Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

Stereolasma ungula Hall

3741/1 TYPE Streptelasma ungula Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 19, fig. 18.

Streptelasma ungula. New York state museum memoir (unpublished). pl. 3, fig. 9.

Hamilton beds — Western New York

SYNAPTOPHYLLUM Simpson

Synaptophyllum baculoideum Simpson

334 $\frac{3800}{1}$ TYPE Synaptophyllum baculoideum Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 35.
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

335 $\frac{3800}{2}$ TYPE Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 36.
Onondaga limestone Leroy N. Y
C. D. Walcott and C. Van Deloo, coll. 1877

Synaptophyllum segregatum Simpson

336 $\frac{3801}{1}$ TYPE Synaptophyllum segregatum Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 37.
Onondaga limestone Clarksville, Albany co. N. Y.

Synaptophyllum simcoense Billings (sp.)

337 $\frac{3802}{1}$ HYPOTYPE Eridophyllum simcoense Billings. Canadian journal. 1859. 4 : 132.
Synaptophyllum simcoense Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 33.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

338 $\frac{3802}{2}$ HYPOTYPE Simpson. New York state museum bulletin 39. 1900. p. 213, fig. 34.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

TETRADIUM Dana

Tetradium cellulosum Hall (sp.)

339 $\frac{3820}{1}$ TYPE Phytopsis cellulosum Hall. Paleontology of New York. 1847. 1 : 39, pl. 9, fig. 1b.
Lowville limestone Fort Plain N. Y.

Triplophyllum dalii *see* Triplophyllum nodulosum

TRIPLOPHYLLUM Simpson

Triplophyllum nodulosum Rominger (sp.)

340 $\frac{3840}{1}$ HYPOTYPE Zaphrentis nodulosa Rominger. Geological survey of Michigan. 1876. v. 3, pt 2, p. 148.
Triplophyllum dalii Simpson. New York state museum bulletin 39. 1900. p. 209, fig. 26.
Onondaga limestone Kinderhook group Burlington la.

Triplophyllum terebratum Hall (sp.)

3841/1 TYPE Zaphrentis terebrata Hall. 12th annual report of the Indiana state geologist. 1883. p. 316, pl. 23, fig. 5.

Triplophyllum terebratum. New York state museum memoir (unpublished). pl. 11, fig. 17, 18, 19.

Onondaga limestone — Falls of the Ohio, Ky.

VERMIPORA Hall

Vermipora robusta Hall

3860/1 TYPE Vermipora robusta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 144.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 32.

Hall & Simpson. Paleontology of New York. 1887 v. 6, pl. 2, fig. 32.

Helderbergian — Schoharie N. Y.

3860/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 33.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 33.

New Scotland beds — Schoharie county, N. Y.
J. Gebhard purchase

Vermipora serpuloides Hall

3861/1 TYPE Vermipora serpuloides Hall. 26th annual report of the New York state museum of natural history. 1874. p. 110.

Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 26.

New Scotland beds — Schoharie county, N. Y.
J. Gebhard purchase

3861/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 27.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 27.

New Scotland beds — Schoharie county, N. Y.
J. Gebhard purchase

346 $\frac{3861}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 29.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 29

New Scotland beds Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

347 $\frac{3861}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 30.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 30.

Helderbergian Schoharie N. Y.

348 $\frac{3861}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 31.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 31.

Helderbergian Schoharie N. Y.

Vermipora streptocoelia Clarke

349 $\frac{3862}{1}$ TYPE: PLASTOTYPE Vermipora streptocoelia Clarke. New York state museum memoir 3. 1900. p. 63, pl. 9, fig. 7.

Oriskanian Becraft mountain, Hudson N. Y.

350 $\frac{3862}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 9, fig. 8.

Oriskanian Becraft mountain, Hudson N. Y.

ZAPHRENTIS Rafinesque

Zaphrentis ampla Hall

351 $\frac{3880}{1}$ TYPE Zaphrentis ampla Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 21, fig. 1.

New York state museum memoir (unpublished). pl. 5, fig. 11.

Hamilton beds Darien, Genesee co. N. Y.
C. Van Deloo, coll. 1865

352 $\frac{3880}{2}$ TYPE Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 21, fig. 2.

New York state museum memoir (unpublished). pl. 5, fig. 9.

Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Zaphrentis complanata Hall.

3881/1 TYPE Zaphrentis complanata Hall. Fossil corals of the Niagara and upper Helderberg groups. 1882. p. 26.

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. 28, fig. 1.

New York state museum memoir (unpublished). pl. 7, fig. 20.

Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Zaphrentis conigera *see* Scenophyllum conigerum

Zaphrentis ? dissimilis Hall

3882/1 TYPE Streptelasma dissimilis Hall. 35th annual report of the New York state museum of natural history. 1884. p. 421, pl. 23, fig. 3, 4.

Zaphrentis ? dissimilis New York state museum memoir (unpublished). pl. 2, fig. 31, 32.

Schoharie grit Clarksville, Albany co. N. Y.
L. E. Brown and C. Van Deloo, coll. 1876

Zaphrentis fastigata Hall

3883/1 TYPE Zaphrentis fastigata Hall. Descriptions of fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 30.

Zaphrentis fastigata Hall. 35th annual report of the New York state museum of natural history. 1884. p. 434.

Onondaga limestone Leroy N. Y.

Zaphrentis halli Milne-Edwards & Haime

3884/1 HYPOTYPE Zaphrentis halli Milne-Edwards & Haime. Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 341.

Hall. Illustrations of Devonian fossils. Corals. 1876. pl. 20, fig. 9.

New York state museum memoir (unpublished). pl. 6, fig. 10.

Hamilton beds Skaneateles lake N. Y.

Zaphrentis herzeri *see* Kionelasma herzeri

Zaphrentis nodulosa *see* Triplophyllum nodulosum

Zaphrentis roemeri Milne-Edwards & Haime

357 5852 HYPOTYPE Zaphrentis roemeri Milne-Edwards & Haime. Monographie des polypiers fossiles des terrains Palaeozoiques. 1851. p. 341.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 1, fig. 14.

New York state museum memoir (unpublished). pl. 2, fig. 22.

New Scotland beds Clarksville, Albany co. N. Y.

Zaphrentis sentosa Hall

358 5853 TYPE Zaphrentis sentosa Hall. Fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 32. (not figured)

Hall. 35th annual report of the New York state museum of natural history. 1884. p. 436. (not figured)

New York state museum memoir (unpublished). pl. 4, fig. 32, 33.

Onondaga limestone Cayuga Ont.

C. D. Walcott, coll. 1878

359 5854 TYPE Hall. Fossil corals of the Niagara and Upper Helderberg groups. 1882. p. 32. (not figured)

Hall. 35th annual report of the New York state museum of natural history. 1884. p. 436. (not figured)

New York state museum memoir (unpublished). pl. 4, fig. 31

Onondaga limestone Wampole Ont.

C. D. Walcott, coll. 1878

Zaphrentis simplex Hall

360 5855 TYPE Streptelasma simplex Hall. Geology of New York ... report on the 4th district. 1843. p. 209, fig. 2.

Zaphrentis simplex Hall. Illustrations of Devonian fossils. 1851. pl. 22, fig. 8.

Hamilton beds Canandaigua, Ontario co. N. Y.

N. Y. state survey collection

Zaphrentis tabulata Hall

361 5856 TYPE Zaphrentis tabulata Hall. Descriptions of new species of Niagara and Upper Helderberg fossils. 1852. p. 37

Hall. 35th annual report of the New York state museum of natural history. 1884. pl. 29, fig. 3, 4.

New York state museum memoir (unpublished). pl. 6, fig. 7, 8.

Onondaga limestone Falkirk, Erie co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Zaphrentis terebrata *see* Triplophyllum terebratum

ECHINODERMATA

Actinocrinus eucharis *see* Gennaeocrinus eucharis

Actinocrinus nyssa *see* Gennaeocrinus nyssa

Actinocrinus tenuiradiatus *see* Palaeocystites tenuiradiatus

AGELACRINITES Vanuxem

Agelacrinites hamiltonensis Vanuxem

$\frac{4000}{1}$ TYPE: PLASTOTYPE Agelacrinites hamiltonensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 158, p. 306, fig. 80.

Agelacrinus hamiltonensis Hall. 24th annual report on the New York state cabinet of natural history. 1872. pl. 6, fig. 14, 15.

Hamilton beds Hamilton, Madison co. N. Y.
Geological survey coll.

Agelacrinites kaskaskiensis Hall

$\frac{4001}{1}$ PLASTOTYPE Agelacrinus kaskaskiensis Hall. Geology of Iowa. 1858. v. 1, pt 2, p. 696, pl. 25, fig. 18.

Kaskaskia limestone Kaskaskia Ill.

AMPHERISTOCRINUS Hall

Ampheristocrinus typus Hall

$\frac{4010}{1}$ TYPE Ampheristocrinus typus Hall. Transactions of the Albany institute. 1879. 10:11 (abstract)

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 17, 18.

Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

AOROCRINUS Wachsmuth & Springer

Aorocrinus? cauliculus Hall (sp.)

.805 4080 TYPE Actinocrinus cauliculus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

.860 4080 TYPE Hall. 15th annual report of New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

.805 4080 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

Aorocrinus? pocillum Hall (sp.)

.805 4081 TYPE Actinocrinus pocillum Hall. 15th annual report of the New York state museum of natural history. 1862. p. 134.

Hamilton shales Cashing creek, near Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

.805 4081 TYPE Hall. 15th annual report of the New York state museum of natural history. 1862. p. 134.

Hamilton shales Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Aorocrinus? praecursor Hall (sp.)

.805 4082 TYPE Actinocrinus praecursor Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 133

Hamilton shales Canandaigua lake shore N. Y.

C. A. White and C. Van Deloo, coll. 1860

Aorocrinus nobilissimus Hall sp.

.805 4083 TYPE Actinocrinus nobilissimus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 133

Hamilton shales Canandaigua N. Y.

ASPIDOCRINUS Hall

Aspidocrinus digitatus Hall

372 $\frac{4080}{1}$ TYPE Aspidocrinus digitatus Hall. Paleontology of New York. 1859. 3: 123, pl. 5, fig. 19, 20.
New Scotland beds Schoharie N. Y.

BRACHIOCRINUS Hall

Brachiocrinus nodosarius Hall

373 $\frac{4080}{1}$ TYPE Brachiocrinus nodosarius Hall. Paleontology of New York. 1859. 3: 118, pl. 5, fig. 5.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

374 $\frac{4080}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 6, fig. 1.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

Cacabocrinus troosti *see* Dolatocrinus troosti

CAMAROCRINUS Hall

Camarocrinus stellatus Hall

375 $\frac{4100}{1}$ TYPE Camarocrinus stellatus Hall. 28th annual report of the New York state museum of natural history. 1879. p. 207, pl. 35, fig. 3, 4, 7.
Manlius limestone Schoharie N. Y.
J. Gebhard purchase

376 $\frac{4100}{2}$ TYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 35, fig. 1, 2, 5, 6.
Manlius limestone Schoharie N. Y.
J. Gebhard purchase

377 $\frac{4100}{3}$ TYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 35, fig. 8.
Manlius limestone Schoharie N. Y.
J. Gebhard purchase

CODASTER McCoy

Codaster pentalobus Hall

378 $\frac{4110}{1}$ TYPE Codaster pentalobus Hall. Transactions of the Albany institute. 1879. 10: 13 (abstract)
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 16.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Codaster pulchellus Miller & Dyer

379 $\frac{1}{1}\frac{1}{1}\frac{1}{1}$ HYPOTYPE Codaster pulchellus Miller & Journal of the Cincinnati society of natural history. 1:35.

Codaster (Stephanocrinus?) pulche Hall. 11th annual report of the Indiana state geo 1882. pl. 15, fig. 8, 9.

Niagaran Waldroi

C. D. Walcott and C. Van Deloo, coll

380 $\frac{1}{2}\frac{1}{1}\frac{1}{1}$ HYPOTYPE Hall. 11th annual report of the Ir state geologist. 1882. pl. 15, fig. 10.

Niagaran Waldroi

C. D. Walcott and C. Van Deloo

CORONOCRINUS Hall

Coronocrinus polydactylus Hall

381 $\frac{1}{1}\frac{1}{2}\frac{0}{0}$ TYPE Coronocrinus polydactylus Hall. ontology of New York. 1859. 3:124, pl. 6, fig. 4,

New Scotland beds Schoharie

Cyathocrinus bulbosus *see* Arachnoc bulbosus

DENDROCRINUS Hall

Dendrocrinus ancilla Hall

382 $\frac{1}{1}\frac{1}{3}\frac{0}{0}$ TYPE Dendrocrinus ancilla Hall. Transac of the Albany institute. 1879. 10:9 (abstract)

Hall. 11th annual report of the Indiana state geol 1882. pl. 15, fig. 19.

Niagaran Waldron

C. D. Walcott and C. Van Deloo, coll.

DOLATOCRINUS Lyon

Dolatocrinus troosti Hall (sp.)

383 $\frac{1}{1}\frac{1}{4}\frac{0}{0}$ TYPE Cacabocrinus troosti Hall. 15th an report of the New York state cabinet of natural his 1862. p. 138.

Hamilton shales Vincent, Ontario co. N

C. A. White and C. Van Deloo, coll.

384 $\frac{1}{3}\frac{1}{4}\frac{0}{0}$ TYPE Hall. 15th annual report of the New York cabinet of natural history. 1862. p. 138.

Hamilton shales Vincent I

C. A. White and C. Van Deloo, coll.

41/3 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/4 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales near Vincent N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

41/5 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/6 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/7 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/8 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/9 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/10 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/11 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

41/12 40 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

395 $\frac{41\frac{4}{13}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

396 $\frac{41\frac{4}{14}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

397 $\frac{41\frac{4}{15}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 138.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

Echinus drydenensis *see* Eocidaris drydenensis

EDRIOCRINUS Hall

Edriocrinus becraftensis Clarke

398 $\frac{41\frac{8}{1}0}{}$ TYPE: PLASTOTYPE Edriocrinus becraftensis Clarke. New York state museum memoir 3. 1900. p. 62, pl. 9, fig. 12, 13.
Oriskanian Becraft mountain, Hudson N. Y.

ELEUTHEROCRINUS Shumard & Yandell

Eleutherocrinus whitfieldi Hall

399 $\frac{41\frac{8}{1}0}{}$ TYPE Eleutherocrinus whitfieldi Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Canandaigua lake N. Y.
C. A. White and C. Van Deloo, coll. 1860

400 $\frac{41\frac{8}{2}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

401 $\frac{41\frac{8}{3}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

402 $\frac{41\frac{8}{4}0}{}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

4180/5 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

4180/6 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

4180/7 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 151.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

EOCIDARIS Desor

Eocidaris drydenensis (Vanuxem) Hall

4200/1 TYPE Echinus drydenensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 184 (not figured).
Eocidaris drydenensis Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 298 (not figured).
Portage (Ithaca) beds Dryden, Tompkins co. N. Y.

EUCALYPTOCRINUS Goldfuss

Eucalyptocrinus caelatus Hall

4205/1 HYPOTYPE Eucalyptocrinus caelatus Hall. Paleontology of New York. 1852. 2:210.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 2.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Eucalyptocrinus constrictus Hall

4206/1 TYPE Eucalyptocrinus constrictus Hall. Transactions of the Albany institute. 1879. 10:10.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 1.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

EUGASTER Hall

Eugaster logani Hall

409 TYPE: PLASTOTYPE Eugaster logani Hall. annual report of the New York state cabinet of natu tory. 1867. p. 290, pl. 9, fig. 7, 8.
Hamilton beds Fenner, Madison co.
Geological survey col

GENNAEOCRINUS Wachsmuth & Springer

Gennaeocrinus eucharis Hall (sp.)

410 TYPE Actinocrinus eucharis Hall. 15th report of the New York state cabinet of natural h 1862. p. 130.
Hamilton shales Cashong creek, near Bellona
C. A. White and C. Van Deloo, coll

411 TYPE Hall. 15th annual report of the New York cabinet of natural history. 1862. p. 130.
Hamilton shales Vincent
C. A. White and C. Van Deloo, coll

Gennaeocrinus nyssa Hall sp.

412 TYPE Actinocrinus nyssa Hall. 15th annu port of the New York state cabinet of natural hi 1862. p. 129.
Hamilton shales Vincent
C. A. White and C. Van Deloo, coll.

413 TYPE Hall. 15th annual report of the New York cabinet of natural history. 1862. p. 129.
Hamilton shales Vincent
C. A. White and C. Van Deloo, coll.

414 TYPE Hall. 15th annual report of the New York cabinet of natural history. 1862. p. 129.
Hamilton shales Fall brook, Livingston co.
C. A. White and C. Van Deloo, coll.

415 TYPE Hall. 15th annual report of the New York cabinet of natural history. 1862. p. 129.
Hamilton shales Fall brook
C. A. White and C. Van Deloo, coll.

GILBERTSOCRINUS Phillips

Gilbertsocrinus spinigerus Hall (sp.)

4240/1 TYPE Trematocrinus spinigerus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 128.

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

4240/2 TYPE Gilbertsocrinus (Trematocrinus) spinigerus Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 9.[1]

Hamilton shales Vincent N. Y.

C. A. White and C. Van Deloo, coll. 1860

ICHTHYOCRINUS Conrad

Ichthyocrinus subangularis Hall

4250/1 HYPOTYPE Ichthyocrinus subangularis Hall. Transactions of the Albany institute. 1863. 4:7.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 12.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, 1878

4250/2 HYPOTYPE Hall. 11th annual report of the Indiana state geologist. pl. 15, fig. 13.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4250/3 HYPOTYPE Hall. 28th annual report of the New York state museum of natural history. 1879. pl. 16, fig. 11, 12.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 16, fig. 11, 12.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

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the journal of the Boston society of natural history for 1861 (art. 4, p. 261–325) Prof. Hall published without illustrations a paper entitled *Descriptions of new species of Crinoidea from the carboniferous rocks of the Mississippi valley*. Separate copies of this paper bound up with 7 photolithic plates of crinoids and explanatory matter were circulated in 1872. These plates were lettered "Bull. mus. nat. hist. bull. 1" and consisted chiefly of figures of Carbonic crinoids, but carried a number of Devonic species; the latter not referred to in the text.

LECANOCRINUS Hall

Lecanocrinus pusillus Hall

421 $\frac{12360}{1}$ TYPE Cyathocrinus pusillus Hall. Transac of the Albany institute. 1863. 4:6.

Lecanocrinus pusillus Hall. 28th ar report of the New York state museum of natural his 1879. pl. 15, fig. 1, 5.

Hall. 11th annual report of the Indiana state geol 1882. pl. 14, fig. 1, 5.

Niagaran Waldron

C. D. Walcott and C. Van Deloo, coll.

422 $\frac{12360}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana geologist. 1882. pl. 15, fig. 7.

Niagaran Waldron

C. D. Walcott and C. Van Deloo, coll.

LEPADOCRINUS Conrad

Lepadocrinus gebhardi Conrad (sp.)

423 $\frac{12370}{1}$ HYPOTYPE Lepocrinites gebhardi Co Annual report on the paleontology of New York. p. 207.

Lepadocrinus gebhardi Hall. Paleont of New York. 1859. v. 3, pl. 7, fig. 1–4.

Coeymans limestone Schoharie l

424 $\frac{12370}{2}$ HYPOTYPE Hall. Paleontology of New York. v. 3, pl. 7, fig. 7.

Coeymans limestone Schoharie l

LEPIDECHINUS Hall

Lepidechinus rarispinus Hall

425 $\frac{12380}{1}$ PLASTOTYPE Lepidechinus rarispinus 20th annual report of the New York state cabinet of ural history. 1867. p. 295, pl. 9, fig. 10.

Waverly beds Meadville Pa. (or Licking county

Lepocrinites gebhardi *see* Lepadocrinus hardi

MACROSTYLOCRINUS Hall

Macrostylocrinus striatus var. **granulosus** Hall

426 $\frac{4290}{1}$ TYPE Macrostylocrinus striatus var. granulosus Hall. 28th annual report of the New York state museum of natural history. 1879. p. 129.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

MARIACRINUS Hall

Mariacrinus macropetalus Hall

427 $\frac{4300}{1}$ HYPOTYPE Mariacrinus macropetalus Hall. Paleontology of New York. 1859. 3 : 111, pl. 3A, fig. 10.
Becraft limestone Schoharie N. Y.

428 $\frac{4300}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 3B, fig. 2.
Becraft limestone Schoharie N. Y.
J. Gebhard purchase

Mariacrinus plumosus Hall

429 $\frac{4301}{1}$ TYPE Mariacrinus plumosus Hall. Paleontology of New York. 1859. 3 : 110, pl. 3, fig. 6.
Coeymans limestone Wheelock's hill, Litchfield Herkimer co. N. Y.

Mariacrinus ramosus Hall

430 $\frac{4302}{1}$ TYPE Mariacrinus ramosus Hall. Paleontology of New York. 1859. 3 : 147, pl. 2, fig. 6.
Coeymans limestone Wheelock's hill, Litchfield Herkimer co. N. Y.

Mariacrinus stoloniferus Hall

431 $\frac{4303}{1}$ HYPOTYPE Mariacrinus stoloniferus Hall. Paleontology of New York. 1859. 3 : 112, pl. 3A, fig. 4.
New Scotland beds Schoharie N. Y.

MEGISTOCRINUS Owen & Shumard

Megistocrinus depressus Hall

432 $\frac{4320}{1}$ TYPE Megistocrinus depressus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 134.
Hamilton shales Canandaigua lake N. Y.
C. A. White and C. Van Deloo, coll. 1860

433 $\frac{4320}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 134.
Hamilton shales Canandaigua lake N. Y.

434 13320 HYPOTYPE Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 2: 540, pl. 49, fig. 4a. (Museum of comparative zoology memoir. 1897. v. 21)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased

435 13320 HYPOTYPE Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 2: 540, pl. 49, fig. 4c. (Museum of comparative zoology memoir. 1897. v. 21)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased

Megistocrinus ontario Hall

436 13321 TYPE Megistocrinus ontario Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 136.
Hamilton shales Near Dresden, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

437 13321 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 136.
Hamilton shales Western New York
C. A. White, coll. 1860

MELOCRINUS Goldfuss

Melocrinus carleyi Hall

438 13[illegible] HYPOTYPE Glyptocrinus carleyi Hall. Transactions of the Albany institute. 1863. 4: 9.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 5.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1898

Melocrinus clarkei (Hall mss.) Williams

439 13[illegible] TYPE Melocrinus clarkei (Hall mss.) Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 31.
Genesee shale Bell's gully, Canandaigua lake N. Y.
J. M. Clarke, donor

Melocrinus gracilis Wachsmuth & Springer

440 13[illegible] TYPE Melocrinus gracilis Wachsmuth & Springer. North American Crinoidea Camerata. 1897. 1: 298, pl. 22, fig. 5. (Museum of comparative zoology memoir. 1897. v. 20)
Hamilton shales Canandaigua lake N. Y.
Clarke collection purchased

NUCLEOCRINUS Conrad

Nucleocrinus lucina Hall

441 $\frac{1380}{1}$ TYPE Nucleocrinus lucina Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.
Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, 1860

442 $\frac{1380}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.
Hamilton shales Canandaigua lake N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

443 $\frac{1380}{3}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 148.
Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, coll. 1860

PALAEOCYSTITES Billings

Palaeocystites tenuiradiatus Hall (sp.)

444 $\frac{1380}{1}$ TYPE Actinocrinus tenuiradiatus Hall. Paleontology of New York. 1847. 1:18, pl. 4, fig. 8.
Chazy limestone Chazy, Clinton co. N. Y.

PAROPSONEMA Clarke

Paropsonema cryptophya Clarke

445 $\frac{1400}{1}$ TYPE: PLASTOTYPE Paropsonema cryptophya Clarke. New York state museum bulletin 39. 1900. p. 172, pl. 6, fig. 1; pl. 7, fig. 1.
Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

446 $\frac{1400}{2}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 8, fig. 1.
Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

447 $\frac{1400}{3}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 8, fig. 2.
Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897
On slab with type of pl. 6, fig. 1.

448 $\frac{1400}{4}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 9, fig. 1.
Portage sandstone Naples N. Y.
D. D. Luther, coll. 1897

449 $\frac{1400}{8}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 9, fig. 2.
Portage sandstone Naples N. Y.
D. D. Luther coll. 1897

450 $\frac{1400}{9}$ TYPE Clarke. New York state museum bulletin 39. 1900. pl. 9, fig. 3.
Portage sandstone Naples N. Y.
D. D. Luther coll. 1897

PENTREMITES Say

Pentremites leda Hall

451 $\frac{1480}{1}$ TYPE Pentremites leda Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 149.
Hamilton shales Cashong creek, near Bellona N. Y.
C. A. White and C. Van Deloo, coll. 1860

452 $\frac{1480}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 149.
Hamilton shales near Alexander, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

PERIECHOCRINUS Austin

Periechocrinus christyi Hall (sp.)

453 $\frac{1480}{3}$ HYPOTYPE Saccocrinus christyi Hall. Transactions of the Albany institute. 1863. 4:2 (abstract).
Hall. 11th annual report of the Indiana state geologist. 1882. p. 15, fig. 3
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1890

454 $\frac{1480}{4}$ HYPOTYPE Saccocrinus christyi Hall. 11th annual report of the Indiana state geologist. 1882. p. 15, fig. 4
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1890

[illegible]

Naticonema obvaccata Hall

[illegible] Naticonema obvaccata Hall. 15th annual report of the New York state cabinet of natural history. [illegible]
[illegible] York, Livingston co. N. Y.
[illegible] and C. Van Deloo, coll. 1860

456 $\frac{4460}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 132.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

POTERIOCRINUS Miller

Poteriocrinus ? calyx Hall

457 $\frac{4470}{1}$ TYPE Poteriocrinus? calyx Hall. Transactions of the Albany institute. 1879. 10: 10 (abstract).
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 14.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Poteriocrinus clarkei Williams

458 $\frac{4471}{1}$ TYPE Poteriocrinus clarkei Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville, Steuben co. N. Y.
Clarke collection purchased

459 $\frac{4471}{2}$ TYPE Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville N. Y.
Clarke collection purchased

460 $\frac{4471}{3}$ TYPE Williams. Proceedings of the Academy of natural sciences of Philadelphia. 1882. p. 21.
Chemung group Haskinville N. Y.
Clarke collection purchased

Poteriocrinus diffusus Hall

461 $\frac{4472}{1}$ TYPE Poteriocrinus diffusus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 121.
Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 1.[1]
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

462 $\frac{4472}{2}$ TYPE Hall. New York state museum bulletin 1. 1872. pl. 1, fig. 2.[1]
Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

1 *See* footnote on p. 71.

Poteriocrinus nereus Hall

463 $\frac{44}{1}\frac{73}{}$ TYPE Poteriocrinus nereus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 121.

Hamilton shales Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Poteriocrinus nycteus Hall

464 $\frac{44}{1}\frac{74}{}$ TYPE Poteriocrinus nycteus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 120.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 3, 4.[1]

Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

PTILONASTER Hall

Ptilonaster princeps Hall

465 $\frac{44}{1}\frac{80}{}$ PLASTOTYPE Ptilonaster princeps Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 292, pl. 9, fig. 9.

Portage (Ithaca) beds Cortland N. Y.
H. S. Randall coll.

RHODOCRINUS Miller

Rhodocrinus (Acanthocrinus) gracilis Hall

466 $\frac{45}{1}\frac{00}{}$ TYPE Rhodocrinus (Acanthocrinus) gracilis Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 7.[1]

Hamilton shales Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

Rhodocrinus nodulosus Hall

467 $\frac{45}{1}\frac{01}{}$ TYPE Rhodocrinus (Acanthocrinus) nodulosus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 126.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 8.[1]

1 *See* footnote on p. 71.

Rhodocrinus nodulosus Wachsmuth & Springer. North American Crinoidea Camerata. 1897. v. 1, pl. 13, fig. 8. (Museum of comparative zoology memoir. 1897. v. 20)

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

15011/2 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 126.

Hamilton beds — Bristol, Ontario co. N. Y.
C. A. White, coll. 1860

Rhodocrinus spinosus Hall

15021/1 TYPE Rhodocrinus spinosus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hall. New York state museum of natural history bulletin 1. 1872. pl. 1, fig. 10.[1]

Hamilton shales — Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

15021/2 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales — Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

15021/3 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales — Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

15021/4 TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 127.

Hamilton shales — Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

SCHIZOCRINUS Hall

Schizocrinus nodosus Hall

15201/1 TYPE Schizocrinus nodosus Hall. Paleontology of New York. 1847. 1:81, pl. 27, fig. 1a.

Trenton limestone — Glens Falls N. Y.

[1] See footnote on p. 71.

STENASTER Billings

Stenaster salteri Billings

474 $\frac{45}{1}\frac{49}{}$ PLASTOTYPE Stenaster salteri Billings. Canadia organic remains. 1858. Decade 3, p. 78, pl. 10, fig. 1a, 1
Trenton limestone Belleville On

THYLACOCRINUS Oehlert

Thylacocrinus clarkei Wachsmuth & Springer

475 $\frac{45}{1}\frac{60}{}$ TYPE Thylacocrinus clarkei Wachsmuth Springer. North American Crinoidea Camerata. 189 1:248, pl. 13, fig. 11a, b. (Museum of comparative zoolo memoir. 1897. v. 20)
Hamilton shales Canandaigua lake N. Y
Clarke collection purchase

Trematocrinus spinigerus *see* Gilbertsocrin spinigerus.

VERMES

ARABELLITES Hinde

Arabellites (sp.)

476 $\frac{5}{1}\frac{000}{}$ HYPOTYPE Arabellites sp. Clarke. 6th annua report of the New York state geologist. 1887. p. 30 pl. A1, fig. 23.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

477 $\frac{5}{2}\frac{000}{}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 24.
Marcellus shale Canandaigua N. Y.
J. M. Clarke purchase

478 $\frac{5}{3}\frac{000}{}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 25.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

479 $\frac{5}{4}\frac{000}{}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 26.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

480 $\frac{5}{5}\frac{000}{}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 27.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

[illegible] Cornulites *see* Cornulites modestus

AUTODETUS Lindström

Autodetus beecheri Clarke

481 $\frac{5020}{1}$ HYPOTYPE Autodetus beecheri Clarke. American geologist. 1894. 13:334.
New York state museum memoir 3. 1900. p. 26, pl. 2, fig. 27.
Oriskanian Becraft mountain, Hudson N. Y.

482 $\frac{5020}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 28.
Oriskanian Becraft mountain, Hudson N. Y.

483 $\frac{5020}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 29.
Oriskanian Becraft mountain, Hudson N. Y.

484 $\frac{5020}{4}$ TYPE Clarke. American geologist. 1894. 13:331, fig. 9.
New York state museum memoir 3. 1900. pl. 2, fig. 30.
Oriskanian Becraft mountain, Hudson N. Y.

485 $\frac{5020}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 31.
Oriskanian Becraft mountain, Hudson N. Y.

486 $\frac{5020}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 32.
Oriskanian Becraft mountain, Hudson N. Y.

Autodetus lindstroemi Clarke

487 $\frac{5021}{1}$ TYPE Autodetus lindstroemi Clarke. American geologist. 1894. 13:334, fig. 4, 5, 6.
Hamilton shales Tichenor's, Canandaigua lake, N. Y.
J. M. Clarke, donor

CLATHROCOELIA Hall

"Clathrocoelia eborica" Hall

(=wing of Actinopteria decussata Hall)

488 $\frac{5040}{1}$ TYPE Clathrocoelia eborica Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 204, pl. 32, fig. 10; pl. 32A, fig. 28.
Hamilton beds Alden, Erie co. N. Y.
C. Van Deloo, coll. 1874

489 $\frac{5040}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 29.
Hamilton beds Darien, Genesee co. N. Y.

COLEOLUS Hall

Coleolus acicula Hall

490 $\frac{5000}{1}$ HYPOTYPE Orthoceras aciculum Hall. Geology of New York; report on the 4th district. 1843. p. 243.
Coleolus aciculum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 11.
Genesee slate Bristol Center, Ontario co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

491 $\frac{5000}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 13.
Genesee slate Bristol Center, Ontario co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

492 $\frac{5000}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 14.
Portage (Naples) beds Mount Morris, Livingston co. N. Y.
C. Van Deloo, coll.

493 $\frac{5000}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 15.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

494 $\frac{5000}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 16.
Marcellus shale Schoharie county, N. Y.
J. Gebhard purchase

Coleolus (Dentalium?) aciculatus Hall

495 $\frac{5001}{1}$ TYPE Dentalium aciculatum Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 107.
Coleolus (Dentalium?) aciculatus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 18.
Marcellus shale Manlius, Onondaga co. N. Y.

Coleolus ? gracilis Hall

496 $\frac{5002}{1}$ TYPE Coleolus? gracilis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 190, pl. 32A, fig. 19.
Chemung beds Nichols, Tioga co. N. Y.
A. Sherwood, coll. 1871

Coleolus crenatocinctus Hall

5063/1 TYPE Coleolus crenatocinctum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 188, pl. 32, fig. 1.
Onondaga limestone Jamesville, Onondaga co. N. Y.
C. A. White, coll. 1860
On slab with type of Bellerophon hyalina. Pal. N. Y. 1879. v. 5, pt 2, pl. 26, fig. 4.

5063/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 4.
Hamilton beds Hamburg, Erie co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

Coleolus tenuicinctus Hall

5064/1 TYPE Coleoprion tenuicinctum Hall. Illustrations of Devonian fossils. 1876. Explanation of pl. 27.
Coleolus tenuicinctum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 5.
Hamilton beds Sherburne creek, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

5064/2 TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 1, 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 8, 9.
Hamilton beds Norton's landing, Cayuga lake N. Y.
H. H. Smith, coll. 1871

5064/3 TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 6; pl. 32A, fig. 9.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

5064/4 TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 27, fig. 3.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 7.
Hamilton beds Norton's landing, Cayuga lake N. Y.
H. H. Smith, coll. 1871.

5064/5 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 6, 7.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

504 5084/8 TYPE Hall. Paleontology of New York. 1879. v. 5 pt 2, pl. 32A, fig. 8.

Hamilton beds Fultonham N. Y
W. M. Gabb, coll. 185

Coleoprion tenuicinctum *see* Coleolus tenuicinctus

CORNULITES Schlotheim

Cornulites cingulatus Hall

505 5080/1 HYPOTYPE: HYPOPLASTOTYPE Cornulites cingulatus Hall. Paleontology of New York. 1888. supplement v. 5, pt 2, p. 20.

Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 35.

Oriskanian Becraft mountain, Hudson N. Y

506 5080/2 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 36.

Oriskanian Becraft mountain, Hudson N. Y

507 5080/3 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 37.

Oriskanian Becraft mountain, Hudson N. Y.

508 5080/4 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 38.

Oriskanian Becraft mountain, Hudson N. Y.

Cornulites modestus Hall & Simpson

509 5081/1 TYPE Aulopora? Cornulites Hall. 2d annual report of the New York state geologist. 1883. pl. 2, fig. 21, 22.

Cornulites modestus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 2, fig. 21, 22.

New Scotland beds Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Trematopora regularis, Pal. N. Y. v. 6, pl. 11, fig. 2.

Cornulites tribulis Hall

510 5082/1 TYPE Cornulites tribulis Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 20, pl. 116, fig. 30.

Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase

Cornulites proprius Hall

5083/1 HYPOTYPE Cornulites proprius Hall. 28th annual report of the New York state museum of natural history. 1876. p. 182.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 4.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

5083/2 HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 7.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

5083/3 HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 8.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878.

5083/4 HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 116, fig. 19.

Niagaran Waldron Ind.

C. Van Deloo, coll. 1878

Cornulites richmondensis Miller (sp.)

5084/1 HYPOTYPE Tentaculites richmondensis Miller. Cincinnati quarterly journal of science. 1874. 1:234.

Cornulites richmondensis Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 115, fig. 37.

Richmond beds Richmond Ind.

Cornulites sterlingensis Meek & Worthen (sp.)

5085/1 HYPOTYPE Tentaculites sterlingensis Meek & Worthen. Proceedings of the Academy of natural sciences of Philadelphia. 1865. p. 255.

Cornulites sterlingensis Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 115, fig. 5.

Lorraine beds Cincinnati O.

Dentalium aciculatum *see* Coleolus (Dentalium ?) aciculatus

EOPOLYCHAETUS Ruedemann

Eopolychaetus albaniensis Ruedemann

517 [illegible] TYPE Eopolychaetus albaniensis Ruedemann. New York state museum bulletin 42. 1901. p. 573, pl. 1, fig. 13.

Utica shale — Rural cemetery, Albany N. Y.

J. M. Clarke and R. Ruedemann, coll. 1899

EUNICITES Ehlers

Eunicites sp.

518 [illegible] HYPOTYPE Eunicites ? Clarke. 6th annual report of the New York state geologist. 1887. p. 30, pl. A1, fig. 28.

Hamilton beds — Canandaigua N. Y.

J. M. Clarke purchase

OENONITES Hinde

Oenonites sp.

519 [illegible] HYPOTYPE Oenonites Clarke. 6th annual report of the New York state geologist. 1887. p. 30, pl. A1, fig. 29.

Hamilton beds — Canandaigua N. Y.

J. M. Clarke purchase

Orthoceras acicula *see* Coleolus acicula

POLYGNATHUS Hinde

Polygnathus cristata Hinde

520 [illegible] HYPOTYPE Polygnathus cristatus Hinde. Quarterly journal of the Geological society. 1879. 35:366.

Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 22.

Portage Naples beds — Naples, Ontario co. N. Y.

J. M. Clarke purchase

Polygnathus dubia Hinde

521 [illegible] HYPOTYPE Polygnathus dubius Hinde. Quarterly journal of the Geological society. 1879. 35:362.

Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 1.

Portage Naples beds — Naples N. Y.

J. M. Clarke purchase

522 $\frac{5161}{2}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 2.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

523 $\frac{5161}{3}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 3.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

524 $\frac{5161}{4}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

525 $\frac{5161}{5}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 5.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

526 $\frac{5161}{6}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 6.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

527 $\frac{5161}{7}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 7.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

528 $\frac{5161}{8}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 8.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

529 $\frac{5161}{9}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 10.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

530 $\frac{5161}{10}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 12.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

531 $\frac{5161}{11}$ HYPOTYPE Clarke. 6th annual ıeport of the New York state geologist. 1887. pl. A1, fig. 13.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

532 $\frac{5161}{12}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 14.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

533 $\frac{5161}{13}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 15.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

534 $\frac{5161}{14}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

535 $\frac{5161}{15}$ HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 19.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus pennata Hinde

536 $\frac{5162}{1}$ HYPOTYPE Polygnathus pennatus Hinde. Quarterly journal of the Geological society. 1879. 35:366.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig.9.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus serrata Hinde

537 $\frac{5162}{1}$ HYPOTYPE Polygnathus serratus Hinde. Quarterly journal of the Geological society. 1879. 35:365.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 21.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus solida Hinde

538 $\frac{5164}{1}$ HYPOTYPE Polygnathus solidus Hinde. Quarterly journal of the Geological society. 1879. 35:365.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 11.
Portage (Naples) beds Naples N. Y.
J. M. Clarke purchase

Polygnathus tuberculata Hinde

5165/1 HYPOTYPE Polygnathus tuberculatus Hinde. Quarterly journal of the Geological society. 1879. 35:366. Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 17.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke purchase

5165/2 HYPOTYPE Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 18.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke purchase

PONTOBDELLOPSIS Ruedemann

Pontobdellopsis cometa Ruedemann

5180/1 TYPE Pontobdellopsis cometa Ruedemann. New York state museum bulletin 42. 1901. p. 574, pl. 1, fig. 14.
Utica shale — Rural cemetery, Albany N. Y.
J. M. Clarke and R. Ruedemann, coll. 1899

5180/2 TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 15.
Utica shale — Rural cemetery, Albany N. Y.
J. M. Clarke and R. Ruedemann, coll. 1899

5180/3 TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 16.
Utica shale — Rural cemetery, Albany N. Y.
J. M. Clarke and R. Ruedemann, coll. 1899
On slab with type of fig. 15, pl. 1.

5180/4 TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 17.
Utica shale — Rural cemetery, Albany N. Y.
J. M. Clarke and R. Ruedemann, coll. 1899
On slab with type of fig. 15, pl. 1.

5180/5 TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 18.
Utica shale — Rural cemetery, Albany N. Y.
J. M. Clarke and R. Ruedemann, coll. 1899
On slab with type of fig. 14, pl. 1.

PRIONIODUS Pander

Prioniodus spicatus Hinde

546 $\frac{5200}{1}$ HYPOTYPE Prioniodus spicatus Hinde. Quarterly journal of the Geological society. 1879. 35:361.
Clarke. 6th annual report of the New York state geologist. 1887. pl. A1, fig. 22.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke purchase

SCOLITHUS Haldeman

Scolithus linearis Hall

547 $\frac{5220}{1}$ TYPE Scolithus linearis Hall. Paleontology of New York. 1847. 1:2, pl. 1, fig. 1b.
Potsdam sandstone — Pennsylvania

SPIRORBIS Lamarck

Spirorbis assimilis Clarke

548 $\frac{5240}{1}$ TYPE: PLASTOTYPE Spirorbis assimilis Clarke. New York state museum memoir 3. 1900. p. 26, pl. 2, fig. 33.
Oriskanian — Becraft mountain, Hudson N. Y.

549 $\frac{5240}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 34.
Oriskanian — Becraft mountain, Hudson N. Y.

TENTACULITES Schlotheim

Tentaculites (?) acus Clarke

550 $\frac{5260}{1}$ TYPE Tentaculites (?) acus Clarke. New York state museum memoir 3. 1900. p. 28, pl. 3, fig. 1.
Oriskanian — Becraft mountain, Hudson N. Y.

551 $\frac{5260}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 2.
Oriskanian — Becraft mountain, Hudson N. Y.

552 $\frac{5260}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 3.
Oriskanian — Becraft mountain, Hudson N. Y.

553 $\frac{5260}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3. fig. 4.
Oriskanian — Becraft mountain, Hudson N. Y.

5260/5 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

5260/6 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3. fig. 6.
Oriskanian Becraft mountain, Hudson N. Y.

5260/7 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 7.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites bellulus Hall

5280/1 HYPOTYPE *See* Tentaculites scalariformis Hall. Hypotype of illustrations of Devonian fossils. 1876. pl. 26, fig. 11 and Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 11.
Hamilton beds. Pratts falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1872

5280/2 TYPE Tentaculites bellulus Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 15, 16.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 15, 16.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

5280/3 TYPE Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 17, 18.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 17, 18.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

5280/4 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 51.
Hamilton beds Moscow N. Y.

Tentaculites elongatus Hall

5281/1 TYPE Tentaculites elongatus Hall. Paleontology of New York 1859. 3 : 136, pl. 6, fig. 18.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

5281/2 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 8.
Oriskanian Becraft mountain, Hudson N. Y.

563 $\frac{52881}{3}$ HYPOTYPE Clarke. New York state museum memoir 1900. pl. 3, fig. 9.
Oriskanian Becraft mountain, Hudson N. Y.

564 $\frac{52881}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

565 $\frac{52881}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

566 $\frac{52881}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites gracilistriatus Hall

567 $\frac{52882}{1}$ TYPE Tentaculites gracilistriatus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 173, pl. 31A, fig. 37.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

568 $\frac{52882}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 38.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

569 $\frac{52882}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 41.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

570 $\frac{52882}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 43.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

571 $\frac{52882}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 46.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

Tentaculites gyracanthus Eaton (sp.)

'2 $\frac{52882}{1}$ HYPOTYPE Echinus gyracanthus Eaton. Geological textbook. 1832. p. 128.

Tentaculites gyracanthus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 12.

Manlius limestone Schoharie, Schoharie co. N. Y.

'3 $\frac{52883}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 13.

Manlius limestone Schoharie N. Y.

Tentaculites minutus Hall

'4 $\frac{52884}{1}$ HYPOTYPE Tentaculites minutus Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 1.

Clinton beds Rochester N. Y.
Pickett collection

'5 $\frac{52884}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 2.

Clinton beds Rochester N. Y.
Pickett collection

On slab with type of pl. 114, fig. 1.

Tentaculites richmondensis *see* Cornulites richmondensis

Tentaculites scalariformis Hall

'6 $\frac{52885}{1}$ HYPOTYPE Tentaculites scalaris (Schlotheim) Hall. Geology of New York; report on the 4th district. 1843. p. 172.

Tentaculites scalariformis Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 5, 6.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 20.

Onondaga limestone Delaware O.
R. P. Whitfield, coll. 1865

563 $\frac{5281}{3}$ HYPOTYPE Clarke. New York state museum memoir 1900. pl. 3, fig. 9.
Oriskanian Becraft mountain, Hudson N. Y.

564 $\frac{5281}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

565 $\frac{5281}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

566 $\frac{5281}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites gracilistriatus Hall

567 $\frac{5282}{1}$ TYPE Tentaculites gracilistriatus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 173, pl. 31A, fig. 37.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

568 $\frac{5282}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 38.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

569 $\frac{5282}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 41.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

570 $\frac{5282}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 43.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

571 $\frac{5282}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 46.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

Tentaculites gyracanthus Eaton (sp.)

572 $\frac{5282}{1}$ HYPOTYPE Echinus gyracanthus Eaton. Geological textbook. 1832. p. 128.

Tentaculites gyracanthus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 12.

Manlius limestone Schoharie, Schoharie co. N. Y.

573 $\frac{5282}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 13.

Manlius limestone Schoharie N. Y.

Tentaculites minutus Hall

574 $\frac{5284}{1}$ HYPOTYPE Tentaculites minutus Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 1.

Clinton beds Rochester N. Y.
Pickett collection

575 $\frac{5284}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 2.

Clinton beds Rochester N. Y.
Pickett collection

On slab with type of pl. 114, fig. 1.

Tentaculites richmondensis *see* Cornulites richmondensis

Tentaculites scalariformis Hall

576 $\frac{5285}{1}$ HYPOTYPE Tentaculites scalaris (Schlotheim) Hall. Geology of New York; report on the 4th district. 1843. p. 172.

Tentaculites scalariformis Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 5, 6.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 20.

Onondaga limestone Delaware O.
R. P. Whitfield, coll. 1865

563 $\frac{52881}{3}$ HYPOTYPE Clarke. New York state museum memoir 1900. pl. 3, fig. 9.
Oriskanian Becraft mountain, Hudson N. Y.

564 $\frac{52881}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

565 $\frac{52881}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

566 $\frac{52881}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

Tentaculites gracilistriatus Hall

567 $\frac{52882}{1}$ TYPE Tentaculites gracilistriatus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 173, pl. 31A, fig. 37.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

568 $\frac{52882}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 38.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

569 $\frac{52882}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 41.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

570 $\frac{52882}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 43.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

571 $\frac{52882}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 46.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 37.

Tentaculites gyracanthus Eaton (sp.)

572 $\frac{5282}{1}$ HYPOTYPE Echinus gyracanthus Eaton. Geological textbook. 1832. p. 128.

Tentaculites gyracanthus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 12.

Manlius limestone Schoharie, Schoharie co. N. Y.

573 $\frac{5283}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 13.

Manlius limestone Schoharie N. Y.

Tentaculites minutus Hall

574 $\frac{5284}{1}$ HYPOTYPE Tentaculites minutus Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 1.

Clinton beds Rochester N. Y.
Pickett collection

575 $\frac{5284}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 2.

Clinton beds Rochester N. Y.
Pickett collection

On slab with type of pl. 114, fig. 1.

Tentaculites richmondensis *see* Cornulites richmondensis

Tentaculites scalariformis Hall

576 $\frac{5285}{1}$ HYPOTYPE Tentaculites scalaris (Schlotheim) Hall. Geology of New York; report on the 4th district. 1843. p. 172.

Tentaculites scalariformis Hall. Illustrations of Devonian fossils. 1876. pl. 26, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31, fig. 5, 6.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 114, fig. 20.

Onondaga limestone Delaware O.
R. P. Whitfield, coll. 1865

563 $\frac{52}{3}$ HYPOTYPE Clarke. New York state museum me
1900. pl. 3, fig. 9.
Oriskanian Becraft mountain, Hudso

564 $\frac{52}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New Yor
museum memoir 3. 1900. pl. 3, fig. 10.
Oriskanian Becraft mountain, Hudso

565 $\frac{52}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New Yor
museum memoir 3. 1900. pl. 3, fig. 11.
Oriskanian Becraft mountain, Hudso

566 $\frac{52}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York
museum memoir 3. 1900. pl. 3, fig. 12.
Oriskanian Becraft mountain, Hudson

Tentaculites gracilistriatus Hall

567 $\frac{52}{1}$ TYPE Tentaculites gracilistriatus
Paleontology of New York. 1879. v. 5, pt 2, p
pl. 31A, fig. 37.
Hamilton beds Darien Center, Genesee co.
C. A. White, coll

568 $\frac{52}{2}$ TYPE Hall. Paleontology of New York. 1879.
pt 2, pl. 31A, fig. 38.
Hamilton beds Darien Center
C. A. White, coll
On slab with type of pl. 31A, fig. 37.

569 $\frac{52}{3}$ TYPE Hall. Paleontology of New York. 1879.
pt 2, pl. 31A, fig. 41.
Hamilton beds Darien Center
C. A. White, coll.
On slab with type of pl. 31A, fig. 37.

570 $\frac{52}{4}$ TYPE Hall. Paleontology of New York. 1879.
pt 2, pl. 31A, fig. 43.
Hamilton beds Darien Center
C. A. White, coll.
On slab with type of pl. 31A, fig. 37.

571 $\frac{52}{5}$ TYPE Hall. Paleontology of New York. 1879.
pt 2, pl. 31A, fig. 46.
Hamilton beds Darien Center
C. A. White, coll.
On slab with type of pl. 31A, fig. 37.

Acanthoclema hamiltonense Nicholson (sp.)

581 $\frac{6002}{1}$ HYPOTYPE Ceriopora? hamiltonensis Nicholson. Geological magazine. 1874. 1:161.

Acanthoclema hamiltonense Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 18, 19.

Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

On slab with Rhombopora carinata, Pal. N. Y. v. 6, pl. 55, fig. 2; pl. 56, fig. 3.

582 $\frac{6002}{2}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 20.

Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

583 $\frac{6002}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 21.

Hamilton beds — Hamburg-on-the-Lake N. Y.
C. A. White, coll. 1860

584 $\frac{6002}{4}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 22.

Hamilton beds — Hamburg-on-the-Lake N. Y.

585 $\frac{6002}{5}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 23, 25.

Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

586 $\frac{6002}{6}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 24.

Hamilton beds — West Williams Ont.

On slab with type of Rhombopora carinata, Pal. N. Y. v. 6, pl. 55, fig. 2.

John De Cew, coll. 1865

587 $\frac{6002}{7}$ HYPOTYPE Hall & Simpson. Paleontology of New York 1887. v. 6, pl. 55, fig. 26.

Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

Acanthoclema scutulatum Hall

588 $\frac{6003}{1}$ TYPE Trematopora scutulata Hall. Transactions of the Albany institute. 1881. 10:180.

Acanthoclema scutulatum Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 16.

Hamilton beds — York, Livingston co. N. Y.

577 $\frac{5\,2\,3\,5}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 18
pl. 26, fig. 7–9.
Hall. Paleontology of New York. 1879. v. 5, pt
pl. 31, fig. 7–9.
Onondaga limestone Delaware
R. P. Whitfield, coll. 18

578 $\frac{5\,2\,3\,5}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 187
pl. 26, fig. 10.
Hall. Paleontology of New York. 1879. v. 5, pt
pl. 31, fig. 10.
Onondaga limestone Delaware
On slab with type of pl. 31, fig. 7–9.
R. P. Whitfield, coll. 186

Tentaculites scalaris *see* Tentaculites scalari formis

Tentaculites scalariformis *see* Tentaculites bellulus ($\frac{5\,2\,5\,0}{2}$)

Tentaculites sterlingensis *see* Cornulites sterlingensis

BRYOZOA

ACANTHOCLEMA Hall

Acanthoclema alternatum Hall

579 $\frac{5\,0\,0\,0}{1}$ TYPE Trematopora alternata Hall. Transactions of the Albany institute. 1881. 10:6 (abstract).
Acanthoclema alternatum Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 8–10.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 8–10
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, 1877

Acanthoclema divergens Hall & Simpson

580 $\frac{5\,0\,0\,1}{1}$ TYPE Trematopora (?) sp. indt. Hall. 2d annual report of the New York state geologist. 1883. pl. 25; fig. 2.
Acanthoclema divergens Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 2.
Onondaga limestone Onondaga Valley N. Y.

Acanthoclema hamiltonense Nicholson (sp.)

6002/1 HYPOTYPE Ceriopora? hamiltonensis Nicholson. Geological magazine. 1874. 1:161.
Acanthoclema hamiltonense Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 18, 19.
Hamilton beds — West Williams Ont.
John De Cew, coll. 1865
On slab with Rhombopora carinata, Pal. N. Y. v. 6, pl. 55, fig. 2; pl. 56, fig. 3.

6002/2 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 20.
Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

6002/3 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 21.
Hamilton beds — Hamburg-on-the-Lake N. Y.
C. A. White, coll. 1860

6002/4 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 22.
Hamilton beds — Hamburg-on-the-Lake N. Y.

6002/5 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 23, 25.
Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

6002/6 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 24.
Hamilton beds — West Williams Ont.
On slab with type of Rhombopora carinata, Pal. N. Y. v. 6, pl. 55, fig. 2.
John De Cew, coll. 1865

6002/7 HYPOTYPE Hall & Simpson. Paleontology of New York 1887. v. 6, pl. 55, fig. 26.
Hamilton beds — West Williams Ont.
John De Cew, coll. 1865

Acanthoclema scutulatum Hall

6003/1 TYPE Trematopora scutulata Hall. Transactions of the Albany institute. 1881. 10:180.
Acanthoclema scutulatum Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 16.
Hamilton beds — York, Livingston co. N. Y.

589 $\frac{8003}{2}$ TYPE Hall & Simpson. Paleontology of New 1887. v. 6, pl. 55, fig. 17.
Hamilton beds Dresden, Yates co.
J. W. Hall and C. Van Deloo, coll

590 $\frac{8003}{3}$ TYPE Hall & Simpson. Paleontology of New 1887. v. 6, pl. 56, fig. 19.
Hamilton beds Hamburg-on-the-Lake
C. A. White, coll

591 $\frac{8003}{4}$ TYPE Hall & Simpson. Paleontology of New 1887. v. 6, pl. 56. fig. 20.
Hamilton beds Hamburg-on-the-Lake
C. A. White, coll.

Acanthoclema sulcatum Hall & Simpson

592 $\frac{8004}{1}$ TYPE Acanthoclema sulcatum Hall & S son. Paleontology of New York. 1887. 6: 192, p fig. 7; pl. 56, fig. 7.
Hamilton beds Darien Center
On slab with type of Stictopora divergens, Pal. v. 6, pl. 63, fig. 18, 19.

Acanthoclema triseriale Hall

593 $\frac{8005}{1}$ TYPE Stictopora ? triserialis Hall. 2d a report of the New York state geologist. 1883. pl fig. 6, 7.
Acanthoclema (Stictopora) triseri Hall & Simpson. Paleontology of New York. v. 6, pl. 28, fig. 6, 7.
Onondaga limestone Leroy
C. A. White, coll.
On slab with type of Stictopora rigida, Pal. N. Y. pl. 28, fig. 15, 16.

ACROGENIA Hall

Acrogenia prolifera Hall

594 $\frac{8020}{1}$ TYPE Acrogenia prolifera Hall. Transactio the Albany institute. 1881. 10: 194.
Acrogenia prolifera Hall & Simpson. Pal tology of New York. 1887. v. 6, pl. 63, fig. 7–9, 1
Hamilton beds Vincent, Ontario co.
C. A. White and C. Van Deloo, coll.

6020/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 10, 11.
Hamilton beds Near Pavilion, Genesee co. N. Y.

6020/3 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 12.
Hamilton beds Near Lodi landing, Seneca lake, N. Y.
J. W. Hall and C. Van Deloo, coll. 1866
On slab with types of Stictopora incisurata, Pal. N. Y. v. 6, pl. 60, fig. 3, 11.

6020/4 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 13.
Hamilton beds Moscow, Livingston co. N. Y.

Alecto ? canadensis *see* Hederella canadensis

Aulopora filiformis *see* Hederella filiformis

BACTROPORA Hall

Bactropora curvata Hall & Simpson

6040/1 TYPE Bactropora curvata Hall & Simpson. Paleontology of New York. 1887. 6: 194, pl. 66, fig. 14–16.
Hamilton beds Fall brook, Gorham, Ontario co. N.Y.

Bactropora granistriata Hall

6041/1 TYPE Trematopora ? granistriata Hall. Transactions of the Albany institute. 1881. 10: 182.
Bactropora granistriata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 20–22.
Hamilton beds Darien Center N. Y.

BOTRYLLOPORA Nicholson

Botryllopora socialis Nicholson

6060/1 HYPOTYPE Botryllopora socialis Nicholson. Geological magazine, new ser. 1874. 1: 160.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 3.
Hamilton beds York, Livingston co. N. Y.
C. Van Deloo, coll. 1878.

6060/2 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 4.
Hamilton beds Leroy, Genesee co. N. Y.

CALLOPORA Hall

Callopora aculeolata *see* Coelocaulis aculeolata

Callopora (Coelocaulis) aculeolata *see* Coelocaulis aculeolata

Callopora bispinulata *see* Rhombopora bispinulata

Callopora cellulosa Hall

602 $\frac{6080}{1}$ TYPE Callopora cellulosa Hall. 32d annual report of the New York state museum of natural history. 1879. p. 154.

Callopora fistulosa Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 4.

Callopora cellulosa Hall & Simpson. Paleontology of New York. 1887. v. 6. pl. 12, fig. 4.

New Scotland beds Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Diamesopora constricta, Pal. N. Y. v. 6, pl. 23A, fig. 7.

603 $\frac{6080}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 7.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Coelocaulis venusta Pal. N. Y. v. 6, pl. 23 a, fig. 2.

604 $\frac{6080}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 9.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Callopora heteropora *see* Callotrypa heteropora

Callopora (Callotrypa) heteropora *see* Callotrypa heteropora

Callopora irregularis *see* Coelocaulis irregularis

[illegible]opora (Coelocaulis) irregularis *see* [illegible]egularis

Callopora macropora *see* Callotrypa macropora

Callopora (Callotrypa) macropora *see* Callotrypa macropora

Callopora (Coelocaulis) mediopora *see* Coelocaulis mediopora

Callopora oculifera *see* Callotrypa oculifera

Callopora (Callotrypa) oculifera *see* Callotrypa oculifera

Callopora parasitica *see* Fistulipora parasitica

Callopora (Callotrypa) paucipora *see* Callotrypa paucipora

Callopora perelegans Hall

6081/1 TYPE Callopora perelegans Hall. 26th annual report of the New York state museum of natural history. 1874. p. 102.

Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 11.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

6081/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 12.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

6081/3 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 13.

New Scotland beds Near Clarksville N. Y.
J. Gebhard purchase

6081/4 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 17.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 17.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

337338

Callopora ponderosa *see* Fistulipora po

Callopora (Callotrypa) striata *see* Ca
striata

Callopora unispina *see* Callotrypa stri
Callotrypa unispina

Callopora venusta *see* Coelocaulis ven

Callopora (Coelocaulis) venusta
locaulis venusta

CALLOTRYPA Hall

Callotrypa heteropora Hall

609 $\frac{2_{1}2_{1}2}{1}$ TYPE Callopora heteropora Hall. 26th report of the New York state museum of natural 1874. p. 102.

Hall. 2d annual report of the New York stat gist. 1883. pl. 11, fig. 33.

Callopora (Callotrypa) heteropor & Simpson. Paleontology of New York. 1887 pl. 11, fig. 33.

New Scotland beds Near Clarksvill

C. D. Walcott and C. Van Deloo, c

610 $\frac{2_{1}2_{1}2}{2}$ TYPE Hall. 2d annual report of the New York sta ogist. 1883. pl. 11, fig. 32.

Hall & Simpson. Paleontology of New York. v. 6, pl. 11, fig. 32.

New Scotland beds Near Clarksvil

C. D. Walcott and C. Van Deloo, c

611 $\frac{2_{1}2_{1}2}{3}$ TYPE Hall. 2d annual report of the New York st ogist. 1883. pl. 13, fig. 5.

Hall & Simpson. Paleontology of New York. v. 6, pl. 13, fig. 5, 7.

New Scotland beds Near Clarksvil

C. D. Walcott and C. Van Deloo, c

612 $\frac{2_{1}2_{1}2}{4}$ TYPE. Hall. 2d annual report of the New York st ogist. 1883. pl. 13, fig. 6.

Hall & Simpson. Paleontology of New York v. 6, pl. 13, fig. 6.

New Scotland beds Near Clarksvil

C. D. Walcott and C. Van Deloo, c

On slab with type of Callotrypa heteropor

6082/6 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 8.

New Scotland beds Near Clárksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Rhombopora canaliculata, v. 6, pl. 11, fig. 12.

6082/6 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 3.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Callotrypa heteropora, pl. 13, fig. 5.

Callotrypa macropora Hall

6100/1 TYPE Callopora macropora Hall. 26th annual report of the New York state museum of natural history. 1874. p. 101.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 23, 24.

Callopora (Callotrypa) macropora Hall & Simpson. Paleontology of New York. 1887. v.6, pl. 11, fig. 23, 24.

New Scotland beds Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

6100/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 28, 29.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 28, 29.

New Scotland beds Near Clarksville N. Y.

J. Gebhard purchase

Callotrypa oculifera Hall

6101/1 TYPE Callopora oculifera Hall. 32d annual report of the New York state museum of natural history. 1879. p. 155.

Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 10.

Callopora (Callotrypa) oculifera Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 10; pl. 23, fig. 6.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Callotrypa paucipora Hall & Simpson

618 $\frac{81}{1}02$ TYPE Callopora (Callotrypa) paucipora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 21.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Callotrypa striata Hall & Simpson

619 $\frac{81}{1}03$ TYPE Callopora unispina Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 38, 39.

Callopora (Callotrypa) striata Hall & Simpson. Paleontology of New York. 1887. 6: 26, pl. 11, fig. 38. 39; pl. 23. fig. 13.

New Scotland beds — Schoharie county, N. Y.

J. Gebhard purchase

620 $\frac{81}{2}02$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 40, 41.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 40, 41; pl. 23, fig. 14.

New Scotland beds — Schoharie county, N. Y.

J. Gebhard purchase

Callotrypa unispina Hall

621 $\frac{81}{1}04$ HYPOTYPE Callopora unispina Hall. 26th annual report of the New York state museum of natural history. 1874. p. 102.

Callotrypa unispina Simpson. 14th annual report of the New York state geologist. 1895. pl. 18, fig. 11.

New Scotland beds — Near Clarksville N. Y.

CERAMELLA Hall

Ceramella scidacea Hall & Simpson

622 $\frac{81}{1}$[illegible] TYPE Ceramella scidacea Hall & Simpson. Paleontology of New York. 1887. 6: 240, pl. 64, fig. 5, 6.

Hamilton beds

Shurger's glen, Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

623 $\frac{81}{2}$[illegible] TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 7, 8.

Hamilton beds — Darien Center N. Y.

C. A. White, coll. 1860

CERAMOPORA Hall

Ceramopora? (Lichenalia) foliacea Hall

1140/1 TYPE Lichenalia foliacea Hall. Transactions of the Albany institute. 1881. 10:183.

Ceramopora? (Lichenalia) foliacea Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 57, fig. 6, 7.

Hamilton beds — Moscow N. Y.

Ceramopora imbricella Hall

1141/1 TYPE Lichenalia (Ceramopora) imbricella Hall. Transactions of the Albany institute. 1881. 10:188 (abstract) (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 37 (not figured).

Ceramopora imbricella Hall & Simpson Paleontology of New York. 1887. 6:236 (not figured).

Hamilton beds — Near Alden, Erie co. N. Y.

Ceramopora maculata Hall

1142/1 TYPE Ceramopora maculata Hall. 26th annual report of the New York state museum of natural history. 1874. p. 108.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 6.

New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

1142/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 11.

New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

Ceramopora? parvicella Hall

1143/1 TYPE Ceramopora parvicella Hall. 32d annual report of the New York state museum of natural history. 1879. p. 158.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 3, 4.

Ceramopora? parvicella Hall & Si
Paleontology of New York. 1887. v. 6, pl. 16, fi
New Scotland beds Near Clarksville, Albany co
C. D. Walcott and C. Van Deloo, col

Ceriopora hamiltonensis *see* Acanth
hamiltonense

Chaetetes (Monotrypella) densu
Monotrypella densa

CHILOTRYPA Ulrich

Chilotrypa ostiolata Hall (sp.)

629 $\frac{81\,60}{1}$ HYPOTYPE Trematopora ostiolata Hall. I
tology of New York. 1852. 2:152.
Chilotrypa ostiolata Grabau. New Yor
museum bulletin 45. 1901. p. 164, fig. 60.
Rochester shale Middleport, Niagara co.
J. M. Clarke and R. Ruedemann, col
On slab with type of Bythopora spinulosa,
fig. 64.

Clathropora striatura *see* Coscinium stri

CLONOPORA Hall

Clonopora fasciculata Hall & Simpson

630 $\frac{81\,80}{1}$ TYPE Clonopora fasciculata Hall & Si
Paleontology of New York. 1887. 6:289, pl. 66
Onondaga limestone Near Buffal
C. A. White, co
On slab with type of Polypora distans, Pal. N.
pl. 37, fig. 4, 5.

Clonopora incurva Hall

631 $\frac{81\,81}{1}$ TYPE Clonopora incurva Hall. Transact
the Albany institute. 1881. 10:20 (abstract).
Hall & Simpson. Paleontology of New York.
v. 6, pl. 66, fig. 5, 6.
Onondaga limestone Lero
C. D. Walcott, co

COELOCAULIS Hall

Coelocaulis aculeolata Hall

6200/1 TYPE Callopora aculeolata Hall. Transactions of the Albany institute. 1881. 10:7 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 16, 17.

Callopora (Coelocaulis) aculeolata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 16, 17.

Onondaga limestone Clarksville N. Y.

On slab with type of Crisinella scrobiculata v. 6, pl. 33, fig. 6–8.

Coelocaulis irregularis Hall

6201/1 TYPE Callopora irregularis Hall. Transactions of the Albany institute. 1881. 10:7 (abstract).

Trematopora (Callopora) irregularis Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 11, 12.

Callopora (Coelocaulis) irregularis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 11, 12.

Onondaga limestone Babcock hill, Herkimer co. N. Y.

On slab with type of Diamesopora camerata. Pal. N. Y. v. 6, pl. 26, fig. 9, 10.

Coelocaulis mediopora Hall & Simpson

6202/1 TYPE Callopora (Coelocaulis) mediopora Hall & Simpson. Paleontology of New York. 1887. 6:23, pl. 23a, fig. 13.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Coelocaulis venusta Hall

6203/1 TYPE Callopora venusta Hall. 26th annual report of the New York state museum of natural history. 1874. p. 101.

Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 20.

Callopora (Coelocaulis) venusta Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 20.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

636 $\frac{6203}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 21, 22.

New Scotland beds — Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

637 $\frac{6203}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 23.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 23.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

638 $\frac{6203}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 12, fig. 24.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 12, fig. 24.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

639 $\frac{6203}{5}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23a, fig. 2.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Callopora cellulosa, Pal. N. Y. v. 6, pl. 12, fig. 7.

640 $\frac{6203}{6}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23a, fig. 4.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

COSCINELLA Hall

Coscinella elegantula Hall & Simpson

641 $\frac{6220}{1}$ TYPE Coscinella elegantula Hall & Simpson. **Paleontology** of New York. 1887. 6:239, pl. 64,

eds — Thedford C

COSCINIUM Keyserling

Coscinium striaturum Hall

240/1 TYPE Clathropora striatura Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 21.

Coscinium striaturum Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 21.

Onondaga limestone Stafford, Genesee co. N. Y.
C. A. White, coll. 1860

Crisina? scrobiculata *see* Crisinella scrobiculata

CRISINELLA Hall

Crisinella scrobiculata Hall

260/1 TYPE Crisina? scrobiculata Hall. Transactions of the Albany institute. 1881. 10:20 (abstract).

Crisinella scrobiculata Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 6–8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 6–8.

Onondaga limestone Clarksville N. Y.

On slab with type of Coelocaulis aculeolata, Pal. N. Y. v. 6, pl. 26, fig. 16, 17.

CYCLOPORINA Hall

Cycloporina hemicyclus Hall

280/1 HYPOTYPE: HYPOPLASTOTYPE Fenestella hemicycla Hall. 6th annual report of the New York state geologist. 1887. p. 55, pl. 7, fig. 12.

Hamilton beds Moscow N. Y.

280/2 HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 13.

Hamilton beds Darien, Genesee co. N. Y.

280/3 HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 14.

Hamilton beds West Williams Ont.
John De Cew, coll. 1865

280/4 HYPOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 15, 16.

Hamilton beds Darien N. Y.

DIAMESOPORA Hall

Diamesopora camerata Hall

648 $\frac{6300}{1}$ TYPE Trematopora camerata Hall. 2d report of the New York state geologist. 1883. fig. 9, 10.

Diamesopora camerata Hall & Si Paleontology of New York. 1887. v. 6, pl. 26, fi

Onondaga limestone Onondaga Valle

On slab with type of Coelocaulis irregulari N. Y. v. 6, pl. 26, fig. 11, 12.

Diamesopora constricta Hall

649 $\frac{6301}{1}$ TYPE Trematopora constricta Hall. 26th report of the New York state museum of natural 1874. p. 104.

Diamesopora constricta Hall & Si Paleontology of New York. 1887. v. 6, pl. 23A

New Scotland beds Near Clarksvill

C. D. Walcott and C. Van Deloo, col

On slab with type of Callopora cellulosa. P v. 6, pl. 12, fig. 4.

650 $\frac{6301}{2}$ TYPE Hall. 2d annual report of the New Yorl geologist. 1883. pl. 10, fig. 14, 15.

Hall & Simpson. Paleontology of New York. v. 6, pl. 10, fig. 14, 15.

New Scotland beds Near Clarksvill

C. D. Walcott and C. Van Deloo, col

651 $\frac{6301}{3}$ TYPE Hall. 2d annual report of the New Yorl geologist. 1883. pl. 10, fig. 16.

Hall & Simpson. Paleontology of New York. v. 6, pl. 10, fig. 16.

New Scotland beds Near Clarksvill

C. D. Walcott and C. Van Deloo, col

652 $\frac{6301}{4}$ TYPE Hall. 2d annual report of the New Yorl geologist. 1883. pl. 10, fig. 17.

Hall & Simpson. Paleontology of New York. v. 6, pl. 10, fig. 17.

New Scotland beds Near Clarksville

C. D. Walcott and C. Van Deloo, col

653 $\frac{8301}{6}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 18, 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 18, 19.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

ESCHAROPORA Hall

Escharopora lirata *see* Ptilodictya lirata

Escharopora (Ptilodictya) lirata *see* Rhinidictya granulosa

Escharopora nebulosa *see* Ptilodictya nebulosa

Escharopora recta Hall

654 $\frac{8320}{1}$ TYPE Escharopora recta Hall. Paleontology of New York. 1847. 1:73, pl. 26, fig. 1a.

Trenton limestone Jacksonburg, Herkimer co. N. Y.

Escharopora tenuis *see* Ptilodictya tenuis

Escharopora (Ptilodictya) tenuis? *see* Ptilodictya tenuis

FAVICELLA Hall

Favicella inclusa Hall

655 $\frac{8340}{1}$ TYPE Thallostigma inclusa Hall. Transactions of the Albany institute. 1881. 10:188.

Favicella inclusa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 21, 22.

Hamilton beds York, Livingston co. N. Y.

C. Van Deloo, coll. 1878

656 $\frac{8340}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 23.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

FENESTELLA Lonsdale

Fenestella (sp.?)

657 $\frac{8360}{1}$ HYPOTYPE Fenestella (sp.?) Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 8.

Fenestella (sp.?) Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 8.

New Scotland beds Schoharie N. Y.

On slab with type of F. (Polypora) lilaea, Pal. N. Y. v. 6, pl. 18, fig. 21, 22.

Fenestella (sp.) *see* Fenestella adornata
Fenestella (sp.) *see* Fenestella noe
Fenestella (sp.) *see* Fenestella spio
Fenestella (sp.) *see* Polypora (sp. indet.)
Fenestella (Polypora) (sp. indet.) *see* Polypora (sp. indet.)

Fenestella adornata Hall & Simpson

658 $\frac{93}{2}\frac{80}{}$ TYPE Fenestella sp.? Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 7.

Fenestella adornata Hall & Simpson. Paleontology of New York. 1887. v 6, pl 22, fig. 7.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

659 $\frac{93}{3}\frac{80}{}$ TYPE Hall. 2d annual report of the New York state museum. 1883. pl. 22, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 8.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella adrastea Hall

660 $\frac{93}{1}\frac{81}{}$ TYPE Fenestella adraste Hall. 32d annual report of the New York state museum of natural history. 1879. p. 169.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 20, 21.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 20, 21.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

661 $\frac{93}{2}\frac{81}{}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 22.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella aequalis Hall

2 6362/1 TYPE Fenestella aequalis Hall. Transactions of the Albany institute. 1881. 10:31 (abstract).

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 46, fig. 27–29.

Onondaga limestone — Walpole Ont.

C. D. Walcott, coll. 1878

On slab with type of F. tuberculata, v. 6, pl. 46, fig. 25, 26.

Fenestella albida Hall

3 6364/1 TYPE Fenestella albida Hall. 6th annual report of the New York state geologist. 1887. p. 48, pl. 7, fig. 1, 5.

Waverly beds — Richfield, Summit co. O.

C. A. White, coll. 1861

4 6364/2 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 2, 6.

Waverly beds — Richfield O.

C. A. White, coll. 1861

5 6364/3 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 3, 4.

Waverly beds — Richfield O.

C. A. White, coll. 1861

On slab with type of F. aperta, 6th report, pl. 4, fig. 1–5.

6 6364/4 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 7.

Waverly beds — Richfield O.

C. A. White, coll. 1861

Fenestella althaea Hall

7 6365/1 TYPE Fenestella althaea Hall. 32d annual report of the New York state museum of natural history. 1879. p. 166.

Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 17

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 17.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

668 6365/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 18.

Hall & Simpson. Paleontology of New York. v. 6, pl. 19, fig. 18.

New Scotland beds Near Clarksville

C. D. Walcott and C. Van Deloo, col

669 $\frac{2}{3}$ TYPE Hall. 2d annual report of the New Yor geologist. 1883. pl. 19, fig. 19.

Hall & Simpson. Paleontology of New York. v. 6, pl. 19, fig. 19.

New Scotland beds Near Clarksvil

C. D. Walcott and C. Van Deloo, c

Fenestella angustata Hall

670 $\frac{1}{1}$ TYPE Fenestella angustata Hall. 36th report of the New York state museum of natural 1883. p. 60.

Hall. 7th annual report of the New York stat gist. 1888. pl. 8, fig. 1, 4, 6–8.

Hamilton beds Near Alden, Erie c

C. D. Walcott and C. Van Deloo, c

671 $\frac{2}{2}$ TYPE Hall. 7th annual report of the New Y geologist. 1888. pl 8, fig. 2, 3.

Hamilton beds Ald

C. Van Deloo, c

672 $\frac{3}{3}$ TYPE Hall. 7th annual report of the New Y geologist. 1888. pl. 8, fig. 5.

Hamilton beds Ald

C. Van Deloo, c

Fenestella aperta Hall

673 $\frac{3}{1}$ TYPE Fenestella aperta Hall. 6th annu of the New York state geologist. 1887. p. fig. 1–5.

Waverly beds Richfield, Sumr

C. A. White,

On slab with type of F. albida, 6th report, pl. 7,

Fenestella arta *see* Polypora arta and obliqua

Fenestella (Polypora) arta *see* Poly

Fenestella (Polypora) aspectans pora aspectans

Fenestella aspectus (in error) *see* aspectans

Fenestella assita Hall

74 $\frac{63668}{1}$ TYPE Fenestella assita Hall. 36th annual report of the New York state museum of natural history. 1883. p. 64.

Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 8, 9.

Hamilton beds Canandaigua lake, N. Y.

75 $\frac{63668}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 7, fig. 10, 11.

Hamilton beds Canandaigua N. Y.

Fenestella (Hemitrypa) biserialis *see* Hemitrypa biserialis

Fenestella (Hemitrypa) biserialis var. exilis *see* Hemitrypa biserialis *var.* exilis

Fenestella biseriata Hall & Simpson

676 $\frac{63669}{1}$ TYPE Fenestella biseriata Hall & Simpson. Paleontology of New York. 1887. 6:113, pl. 42, fig. 16–18.

Onondaga limestone Cherry Valley, Otsego co. N. Y. C. A. White, coll. 1860

Fenestella (Polypora) (n. sp.) *see* Polypora carinella

Fenestella (Polypora) carinella *see* Polypora carinella

Fenestella celsipora *see* Polypora celsipora

Fenestella (Polypora) celsipora *see* Polypora celsipora

Fenestella cleia Hall

677 $\frac{63670}{1}$ TYPE Fenestella cleia Hall. 32d annual report of the New York state museum of natural history. 1879. p. 169.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 14.

New Scotland beds Near Clarksville N. Y. C. D. Walcott and C. Van Deloo, coll. 1877

678 $\frac{63670}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 15.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 15.

New Scotland beds Near Clarksville N. Y.

Fenestella compacta *see* Polypora compacta

Fenestella (Polypora) compacta *see* Polypora compacta

Fenestella compressa *see* Polypora compressa

Fenestella (Polypora) compressa *see* Polypora compressa

Fenestella coronis Hall

679 $\frac{6371}{1}$ TYPE Fenestella coronis Hall. 32d annual report of the New York state museum of natural history. 1879. p. 171.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 10.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

680 $\frac{6371}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 11.

New Scotland beds Near Clarksville N. Y.

681 $\frac{6371}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

682 $\frac{6371}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 13.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella crebescens *see* Polypora crebescens

Fenestella (Polypora) crebescens *see* Polypora crebescens

Fenestella crebripora Hall

683 $\frac{6372}{1}$ TYPE Fenestella crebripora Hall. 26th annual report of the New York state museum of natural history. 1874. p. 95.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 2.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella curvata Hall

684 6373/1 TYPE Fenestella curvata Hall. 36th annual report of the New York state museum of natural history. 1883. p. 69.

Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 2, 6.

Hamilton beds — Moscow, Livingston co. N. Y.

C. Van Deloo, coll. 1865

685 6373/2 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 3–5.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

686 6373/3 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 7, 9.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

687 6373/4 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 8.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

On slab with type of Fenestrapora biperforata, Pal. N. Y. v. 6, pl. 66, fig. 39.

Fenestella curvata *see* Fenestella marcida

Fenestella curvijunctura Hall

688 6374/1 TYPE Fenestella curvijunctura Hall. Transactions of the Albany institute. 1881. 10:29 (abstract).

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 46, fig. 1, 2.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Polypora paxillata, Pal. N. Y. v. 6, pl. 18, fig. 10, 11.

Fenestella dispanda Hall

689 $\frac{6375}{1}$ TYPE Fenestella dispanda Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 44, fig. 1–3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 1–3.

Onondaga limestone Leroy N. Y.

690 $\frac{6375}{2}$ TYPE Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 44, fig. 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 4.

Onondaga limestone Leroy N. Y.

Fenestella (Ptiloporina) disparilis *see* Ptiloporina disparilis

Fenestella distans *see* Polypora distans

Fenestella (Polypora) distans *see* Polypora distans

Fenestella (Polypora) elongata *see* Polypora elongata

Fenestella eudora *see* Polypora eudora

Fenestella eudora? *see* Fenestella stricta

Fenestella (Polypora) eudora *see* Polypora eudora

Fenestella exornata Hall

691 $\frac{6376}{1}$ TYPE Fenestella exornata Hall. 36th annual report of the New York state museum of natural history. 1883. p. 67.

Hall. 6th annual report of the New York state geologist. 1887. pl. 5, fig. 1, 2, 3, 4, 5.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

692 $\frac{6376}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 5, fig. 6–13 (4 specimens used for constructing figures).

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

Fenestella fistulata *see* Polyporella fistulata

Fenestella (Polypora) fistulata *see* Polyporella fistulata

Fenestella flabelliformis *see* Polypora flabelliformis

Fenestella (Polypora) flabelliformis *see* Polypora flabelliformis

Fenestella frequens Hall

6377/1 TYPE Fenestella frequens Hall. 7th annual report of the New York state geologist. 1888. p. 34, pl. 9, fig. 12.

Helderbergian — Near Clarksville N. Y.

Fenestella granifera Hall

6378/1 TYPE Fenestella (Hemitrypa) granifera Hall. Transactions of the Albany institute. 1881. 10:33 (abstract).

Hall. 5th annual report of the New York state geologist. 1886. pl. 50, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 50, fig. 13.

Onondaga limestone — Leroy N. Y.

C. D. Walcott, coll. 1878

Fenestella (Hemitrypa) granifera *see* Fenestella granifera

Fenestella hemicycla *see* Cycloporina hemicycla

Fenestella hestia Hall

6379/1 TYPE Fenestella hestia Hall. 32d annual report of the New York state museum of natural history. 1879. p. 168.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 12, 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 12, 13.

New Scotland beds — Schoharie N. Y.

J. Gebhard purchase

Fenestella idalia Hall

6380/1 TYPE Fenestella idalia Hall. 26th annual report of the New York state museum of natural history. 1874. p. 95.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 7.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

697 $\frac{6350}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 8.

New Scotland beds — Schoharie N. Y.

Fenestella juncea Hall

698 $\frac{6351}{1}$ TYPE Fenestella junceus Hall. 32d annual report of the New York state museum of natural history. 1879. p. 168.

Hall. 2d annual report of the New York state geologist. 1883 pl. 20, fig. 16, 17, 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig 16–18.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella largissima *see* Polypora largissima

Fenestella (Polypora) largissima *see* Polypora largissima

Fenestella (Hemitrypa) lata *see* Unitrypa lata

Fenestella (Unitrypa) lata *see* Unitrypa lata

Fenestella latitruncata *see* Polypora latitruncata

Fenestella (Polypora) latitruncata *see* Polypora latitruncata

Fenestella (Polypora) lilaea *see* Polypora lilaea

Fenestella marcida Hall

6[illegible] $\frac{6352}{1}$ TYPE Fenestella marcida Hall. 36th annual report of the New York state museum of natural history. 1883. p. 61.

Fenestella curvata (erroneously) Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 1, 13.

Hamilton beds — Moscow N. Y.

6382/2 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 10.
Hamilton beds Moscow N. Y.

6382/3 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 11, 14, 15.
Hamilton beds Moscow N. Y.

6382/4 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 6, fig. 12.
Hamilton beds Moscow N. Y.
C. Van Deloo, coll. 1865

Fenestella multiplex *see* Polypora multiplex

Fenestella (Polypora) multiplex *see* Polypora multiplex

Fenestella nervia *see* Unitrypa nervia

Fenestella (Unitrypa) nervia *see* Unitrypa nervia

Fenestella (Hemitrypa) nervia *var.* constricta *see* Unitrypa nervia *var.* constricta

Fenestella (Unitrypa) nervia *var.* constricta *see* Unitrypa nervia *var.* constricta

Fenestella nexilis Hall

6383/1 TYPE Fenestella nexilis Hall. 7th annual report of the New York state geologist. 1888. pl. 10, fig. 14, 15.
Onondaga limestone West of Leroy N. Y.

Fenestella noe Hall

6384/1 TYPE Fenestella (sp.) Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 19.
Fenestella noe Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 19.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 5.

6384/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 21.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 21.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with types of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 5, and F. noe, pl. 13, fig. 19.

706 $\frac{63}{3}\frac{84}{}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 22.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella (Polypora) obliqua *see* Polypora obliqua

Fenestella parallela Hall

707 $\frac{63}{1}\frac{85}{}$ TYPE Fenestella parallela Hall. Transactions of the Albany institute. 1881. 10:26 (abstract).

Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 8, 16-18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 8, 16-18.

Onondaga limestone Near Buffalo N. Y.

708 $\frac{63}{2}\frac{85}{}$ PLASTOTYPE Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 9.

Onondaga limestone Near Buffalo N. Y.

709 $\frac{63}{3}\frac{85}{}$ TYPE Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 10, 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 10, 13.

Onondaga limestone Near Buffalo N. Y.

710 $\frac{63}{4}\frac{85}{}$ HYPOTYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 9, fig. 6-11.

New Scotland beds Catskill creek, Greene co. N. Y.

G. B. Simpson, coll. 1877

Fenestella paxillata *see* Polypora paxillata

Fenestella (Polypora) paxillata *see* Polypora paxillata

Fenestella peculiaris Hall

711 $\frac{63}{1}\frac{86}{}$ TYPE Fenestella peculiaris Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 19-21.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 19-21.

Onondaga limestone Caledonia, Livingston co. N. Y.

C. A. White, coll. 1

Fenestella perangulata *see* Polypora angulata

Fenestella (Polypora) perangulata *see* Polypora angulata

Fenestella perforata *see* Loculipora perforata

Fenestella (Loculipora) perforata *see* Loculipora perforata

Fenestella perundulata *see* Reteporina perundulata

Fenestella (Reteporina) perundulata *see* Reteporina perundulata

Fenestella philia Hall

6387/1 TYPE Fenestella philia Hall. 32d annual report of the New York state museum of natural history. 1879. p. 168.

Hall. 2d annual report of the New York state geologist. 1883. pl. 20, fig. 9–11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 20, fig. 9–11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella planiramosa Hall

6388/1 TYPE Fenestella planiramosa Hall. 36th annual report of the New York state museum of natural history. 1883. p. 62.

Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 1, 9, 10.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

On specimen with type of Stictopora tumulosa, Pal. N. Y. v. 6, pl. 61, fig. 22.

6388/2 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 2.

Hamilton beds Near Pompey Hill, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

6388/3 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 3–5.

Hamilton beds Moscow N. Y.

6388/4 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 6, 7.

Hamilton beds Borodino, Skaneateles lake, N. Y.

J. W. Hall and G. B. Simpson, coll. 1872

717 $\frac{83}{8}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 1, fig. 11–13.

Hamilton beds Moscow N. Y.

C. Van Deloo, coll. 1865

Fenestella planiramosa *see* Polypora compressa

Fenestella praecursor *see* Unitrypa praecursor

Fenestella (Unitrypa) praecursor *see* Unitrypa praecursor

Fenestella propria *see* Polypora propria

Fenestella (Polypora) propria *see* Polypora propria

Fenestella quadrangularis *see* Polypora quadrangularis

Fenestella quadrula Hall

718 $\frac{83}{1}$ TYPE Fenestella quadrula Hall. 32d annual report of the New York state museum of natural history. 1879. p. 172.

Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 19, 20.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 19, 20.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Polypora paxillata, Pal. N. Y. pl. 18, fig. 10, 11, and Fenestella curvipunctura, Pal. N. Y. v. 6, pl. 46, fig. 1, 2.

719 $\frac{83}{1}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 21.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 21.

New Scotland beds Near Clarksville N. Y.

720 $\frac{83}{1}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 21, fig. 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 21, fig. 22.

New Scotland beds Near Clarksville N. Y.

Fenestella rigida *see* Polypora rigida

Fenestella (Polypora) rigida *see* Polypora rigida

Fenestella rhombifera *see* Reteporina rhombifera

Fenestella (Reteporina) rhombifera *see* Reteporina rhombifera

Fenestella scalaris *see* Unitrypa scalaris

Fenestella (Unitrypa) scalaris *see* Unitrypa scalaris

Fenestella sinuosa Hall

63900/1 TYPE Fenestella sinuosa Hall. 5th annual report of the New York state geologist. 1886. pl. 44, fig. 5, 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 44, fig. 5, 6.

Onondaga limestone Caledonia, Livingston co. N. Y.
C. A. White, coll. 1861

Fenestella spio Hall and Simpson

63901/1 TYPE Fenestella (sp.?) Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 16.

Fenestella spio Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 16.

New Scotland beds Near Clarksville N. Y.

Fenestella spissa Hall

63902/1 TYPE Fenestella spissa Hall. 6th annual report of the New York state geologist. 1887. p. 59 (not figured).

Hamilton beds West Bloomfield, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Fenestella striata *see* Reteporina striata

Fenestella (Reteporina) striata *see* Reteporina striata

Fenestella stricta Hall & Simpson

63903/1 TYPE Fenestella eudora? Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 1, 2.

Fenestella stricta Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 1, 2.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Fenestella subtortilis Hall

725 $\frac{a^3 p^4}{1}$ TYPE Fenestella subtortilis Hall. 36th
report of the New York state museum of natural h
1883. p. 71.

Hall. 7th annual report of the New York state
gist. 1888. pl. 9, fig. 1, 2.

Hamilton beds Moscow

C. Van Deloo, coll

726 $\frac{a^3 p^4}{1}$ TYPE Hall. 7th annual report of the New York state
ogist. 1888. pl. 9, fig. 3–5.

Hamilton beds Moscow

Fenestella thyene Hall

727 $\frac{a^3 p^5}{1}$ TYPE Fenestella thyene Hall. 32d annual
of the New York state museum of natural history.
p. 170.

Hall. 2d annual report of the New York state
gist. 1883. pl. 21, fig. 1, 2.

Hall & Simpson. Paleontology of New York.
v. 6 pl. 21, fig. 1, 2.

New Scotland beds Near Clarksville

C. D. Walcott and C. Van Deloo, coll.

728 [illegible] TYPE Hall. 2d annual report of the New York state
[illegible] 1883. pl. 21, fig. 2

Hall & Simpson. Paleontology of New York.
[illegible] pl. 21, fig. 2

New Scotland beds Near Clarksville

[illegible] Van Deloo, coll.

729 [illegible] TYPE Hall. [illegible] annual report of the New York state
[illegible] 1883. [illegible] pl. 5

Hall & Simpson. Paleontology of New York.
[illegible] pl. 5

New Scotland beds Near Clarksville

Fenestella [illegible]

730 [illegible] TYPE [illegible] Hall. [illegible] annual report of the New York state
museum of natural history. [illegible] pl. 4, fig. 8

Hall. [illegible] annual report of the New York state
geologist. 1883. [illegible] pl. 21, fig. 3

Hall & Simpson. Paleontology of New York.
[illegible] pl. 21, fig. 3

New Scotland beds Near Clarksville

FENESTRAPORA Hall

Fenestrapora biperforata Hall

$\frac{420}{1}$ TYPE Fenestrapora biperforata Hall. 4th annual report of the New York state geologist. 1885. Explanation of pl. 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 39.

Hamilton shales Moscow N. Y.

C. Van Deloo, coll. 1865

On slab with type of Fenestella curvata, 6th an. rep't, pl. 6, fig. 8.

FISTULIPORA McCoy

Fistulipora confertipora Hall

$\frac{6440}{1}$ TYPE Thallostigma confertipora Hall. Transactions of the Albany institute. 1881. 10:184.

Fistulipora confertipora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 1, 2.

Hamilton beds Alden, Erie co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

$\frac{6440}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 3.

Hamilton beds Near Darien Center N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

$\frac{6440}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 4.

Hamilton beds Moscow N. Y.

C. A. White and C. Van Deloo, coll. 1860

$\frac{6440}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 5.

Hamilton beds 2 miles east of Alden N. Y.

Fistulipora constricta Hall

$\frac{6441}{1}$ TYPE Lichenalia constricta Hall. Transactions of the Albany institute. 1881. 10:183.

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 11, 12.

Hamilton beds Near Leroy N. Y.

C. D. Walcott, coll. 1878

Fistulipora decipiens Hall

737 $\frac{64}{1}\frac{12}{}$ TYPE Thallostigma decipiens Hall. T
tions of the Albany institute. 1881. 10:187.
Fistulipora decipiens Hall & Simpson.
ontology of New York. 1887. v. 6, pl. 59, fig. 9.
Hamilton beds York, Livingston co
C. Van Deloo, col

Fistulipora densa Hall

738 $\frac{64}{1}\frac{13}{}$ TYPE Thallostigma densa Hall. Transact
the Albany institute. 1881. 10:186 (not figured).
Hall. 3d annual report of the New York state ge
1884. p. 25 (not figured).
Fistulipora densa Hall & Simpson. I
tology of New York. 1887. 6:231 (not figured).
Hamilton beds York
C. Van Deloo, coll

Fistulipora digitata Hall

739 $\frac{64}{1}\frac{14}{}$ TYPE Thallostigma digitata Hall. Transa
of the Albany institute. 1881. 10:185.
Fistulipora digitata Hall & Simpson. P
tology of New York. 1887. v. 6, pl. 59, fig. 10. 1
12, 13, as on plate).
Hamilton shales York
C. Van Deloo, coll.
Fistulipora interaspera *see* Lichenalia
aspera

Fistulipora involvens Hall & Simpson

740 $\frac{64}{1}\frac{15}{}$ TYPE Fistulipora involvens Hall & Simpson.
ontology of New York. 1887. 6:221, pl. 59, fig. 2
Hamilton beds Near Alden
C. Van Deloo, coll.

Fistulipora lamellata Hall

741 $\frac{64}{1}\frac{16}{}$ TYPE Thallostigma lamellata Hall. Transa
of the Albany institute. 1881. 10:13 (abstract).
Fistulipora lamellata Hall. 5th annual r
of the New York state geologist, advance sheets.
pl. 30, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 30, fig. 21, 22.

Onondaga limestone — Onondaga Valley N. Y.
C. A. White, coll. 1860

42 $\frac{644}{3}$ TYPE Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 30, fig. 23.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 30, fig. 23.

Onondaga limestone — Onondaga Valley N. Y.

Fistulipora longimacula Hall

43 $\frac{644.7}{1}$ TYPE Thallostigma longimacula Hall Transactions of the Albany institute. 1881. 10: 185.

Hall. 3d annual report of the New York state geologist. 1884. p. 23 (not figured).

Fistulipora longimacula Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 209 (not figured).

Hamilton beds — York N. Y.
C. Van Deloo, coll. 1878

Fistulipora micropora Hall

744 $\frac{644.8}{1}$ TYPE Thallostigma micropora Hall. Transactions of the Albany institute. 1881. 10: 186.

Fistulipora micropora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 57, fig. 20; pl. 59, fig. 3.

Hamilton beds — Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

On slab with type of F. segregata, Pal. N. Y. v. 6, pl. 59, fig. 4.

Fistulipora minuta Rominger

745 $\frac{644.9}{1}$ HYPOTYPE Fistulipora minuta Rominger. Proceedings of the Academy of natural sciences of Philadelphia. 1866. p. 120.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 5–7.

Hamilton beds — Hamburg-on-the-Lake N. Y.
C. Van Deloo, coll. 1864

746 $\frac{6}{2}\frac{4}{4}\frac{1}{1}\frac{0}{0}$ HYPOTYPE Hall & Simpson. Paleontology of New 1887. v. 6, pl. 59, fig. 8.

Hamilton shales Delphi, Onondaga co.
J. W. Hall and G. B. Simpson, coll.

Fistulipora multaculeata Hall

747 $\frac{6}{1}\frac{1}{1}\frac{5}{5}\frac{0}{0}$ TYPE Thallostigma multaculeata Hall annual report of the New York state geologist. p. 23.

Fistulipora multaculeata Hall & Sim Paleontology of New York. 1887. v. 6, pl. 59, fi 12 (not 10).

Hamilton beds Darien, Genesee co.
C. Van Deloo, coll.

On slab with type of Hederella filiformis, Pal. v. 6, pl. 65, fig. 11.

Fistulipora occidens Hall & Whitfield

748 $\frac{6}{1}\frac{4}{1}\frac{5}{5}\frac{1}{1}$ TYPE Fistulipora occidens Hall & Whi 23d annual report of the New York state cabinet of n history. 1873. p. 228, pl. 10, fig. 9, 10.

Upper Devonic Rockford (marly bed
R. P. Whitfield, coll.

Fistulipora parasitica Hall

749 $\frac{6}{1}\frac{4}{1}\frac{5}{5}\frac{2}{2}$ TYPE Callopora parasitica Hall. 32d a report of the New York state museum of natural hi 1879. p. 157.

Hall. 2d annual report of the New York state gist. 1883. pl. 14, fig. 13, 14.

Fistulipora parasitica Hall & Simpson. ontology of New York. 1887. v. 6, pl. 14, fig. 13.

New Scotland beds Near Clarksville
L. E. Brown and C. Van Deloo, coll.

On slab with type of Polypora obliqua, Pal. v. 6. pl. 18, fig. 8, 9.

Fistulipora plana Hall

750 $\frac{6}{1}\frac{4}{1}\frac{5}{5}\frac{3}{3}$ TYPE Thallostigma plana Hall. Transacti the Albany institute. 1881. 10:187.

Fistulipora plana Hall & Simpson. Pale ogy of New York. 1887. v. 6, pl. 58, fig. 19, 20.

Hamilton beds Darien Center, Genesee co.
C. A. White, coll

Fistulipora ponderosa Hall

1 $\frac{64554}{1}$ TYPE Callopora ponderosa Hall. 26th annual report of the New York state museum of natural history. 1874. p. 103.

Fistulipora ponderosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23A, fig. 10.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Fistulipora pustulosa Hall & Simpson

2 $\frac{64555}{1}$ TYPE Lichenalia pustulosa Hall & Simpson. Paleontology of New York. 1887. 6:206 (not figured), 2 specimens (1 section).

Fistulipora pustulosa Simpson. 14th annual report of the New York state geologist. 1887. pl. 22, fig. 12.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

Fistulipora scrobiculata Hall

53 $\frac{64556}{1}$ TYPE Thallostigma scrobiculata Hall. Transactions of the Albany institute. 1881. 10:184.

Fistulipora scrobiculata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 17, 18.

Hamilton beds York N. Y.

Fistulipora segregata Hall

54 $\frac{64557}{1}$ TYPE Thallostigma segregata Hall. Transactions of the Albany institute. 1881. 10: 186.

Fistulipora segregata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 59, fig. 4.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

On slab with type of **Fistulipora micropora**, Pal. N. Y. v. 6, pl. 57, fig. 20.

Fistulipora serrulata Hall

55 $\frac{64559}{1}$ TYPE Thallostigma serrulata Hall. Transactions of the Albany institute. 1881. 10:185.

Fistulipora serrulata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 6, 7.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1874

756 $\frac{9458}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 8.
Hamilton beds Moscow N. Y.

Fistulipora? subtilis Hall

757 $\frac{9459}{1}$ TYPE Thallostigma subtilis Hall. Transactions of the Albany institute. 1881. 10:187.
Hall. 3d annual report of the New York state geologist. 1884. p. 30 (not figured).
Fistulipora? subtilis Hall & Simpson. Paleontology of New York. 1887. 6:233 (not figured).
Hamilton beds Thedford Ont.
John DeCew, coll. 1865

Fistulipora trifaria Hall & Simpson

758 $\frac{9460}{1}$ TYPE Fistulipora trifaria Hall & Simpson. Paleontology of New York. 1887. 6:222 (not figured).
Hamilton beds Fall brook, Gorham N. Y.

Fistulipora? umbilicata Hall

759 $\frac{9461}{1}$ TYPE Thallostigma umbilicata Hall. Transactions of the Albany institute. 1881. 10:185.
Hall. 3d annual report of the New York state geologist. 1884. p. 22 (not figured).
Fistulipora? umbilicata Hall & Simpson. Paleontology of New York. 1887. 6:213 (not figured).
Hamilton beds York N. Y.
C. Van Deloo, coll. 1878
On slab with type of Paleschara reticulata. Trans. Alb. inst. 10:179 (not figured).

Fistulipora unilinea Hall & Simpson

760 $\frac{9462}{1}$ TYPE Fistulipora unilinea Hall & Simpson. Paleontology of New York. 1887. 6:217, pl. 57, fig. 1, 2, 5.
Hamilton shales York N. Y.
C. Van Deloo, coll. 1878

Fistulipora variapora Hall

761 $\frac{9463}{1}$ TYPE Thallostigma variapora Hall. Transactions of the Albany institute. 1881. 10:184.
Fistulipora variapora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 9.
Hamilton beds Canandaigua lake, N. Y.

$\frac{6463}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 10, 11.

Hamilton beds West Williams Ont.

$\frac{6463}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 12.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

$\frac{6463}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 14.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

GLAUCONOME Goldfuss

Glauconome carinata Hall

$\frac{6480}{1}$ TYPE Glauconome carinata Hall. Transactions of the Albany institute. 1881. 10:196.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 23, 24.

Hamilton beds Fall brook, Gorham N. Y.

Glauconome nodata Hall

$\frac{6481}{1}$ TYPE Glauconome nodata Hall. Transactions of the Albany institute. 1881. 10:18 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 13, 14.

Onondaga limestone Thompson's lake, Albany co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

Glauconome sinuosa Hall

$\frac{6482}{1}$ TYPE Glauconome sinuosa Hall. Transactions of the Albany institute. 1881. 10:18 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 11, 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 11, 12.

Onondaga limestone Near Buffalo N. Y.

Glauconome tenuistriata Hall

768 $\frac{6452}{1}$ TYPE Glauconome tenuistriata Hall. Transactions of the Albany institute. 1881. 10:19 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 15, 16.

Onondaga limestone — Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of Clonopora fasciculata, Pal. N. Y. v. 6, pl. 66, fig. 1.

769 $\frac{6453}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 18.

Onondaga limestone — Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of Clonopora fasciculata, Pal. N. Y. v. 6, pl. 66, fig. 1.

770 $\frac{6453}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 19.

Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 19.

Onondaga limestone — Near Buffalo N. Y.

C. A. White, coll. 1860

On slab with type of Clonopora fasciculata, Pal. N. Y. v. 6, pl. 66, fig. 1.

HEDERELLA Hall

Hederella alternata Hall & Whitfield (sp.)

771 $\frac{6500}{1}$ TYPE Stomatopora? alternata Hall & Whitfield. 23d annual report of the New York state museum of natural history. 1873. p. 235, pl. 10, fig. 7, 8.

Upper Devonic — Lime creek, Rockford Ia.

R. P. Whitfield, coll. 1866

Hederella arachnoidea Clarke

772 $\frac{6501}{1}$ TYPE: PLASTOTYPE Hederella arachnoidea Clarke. New York state museum memoir 3. 1900. p. 61, pl. 9, fig. 11.

Oriskanian — Becraft mountain, Hudson N. Y.

Hederella canadensis Nicholson (sp.)

6502/1 HYPOTYPE Alecto? canadensis Nicholson. Canadian naturalist, ser. 2. 1874. 7:146.

Hederella canadensis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 1, 14.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

6502/2 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 2, 5, 7.

Hamilton beds York N. Y.

6502/3 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 3, 4.

Hamilton beds York N. Y.

6502/4 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 6.

Hamilton beds York N. Y.

6502/5 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 8.

Hamilton beds. York N. Y.

C. Van Deloo, coll. 1878

Hederella cirrhosa Hall

6503/1 TYPE Hederella cirrhosa Hall. Transactions of the Albany institute. 1881. 10:194.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 12, 13.

Hamilton beds West Bloomfield, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Hederella filiformis Billings (sp.)

6504/1 HYPOTYPE Aulopora filiformis Billings. Canadian journal of science, industry and arts, new ser. 1859. 4:119.

Hederella filiformis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 9.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

6504/2 HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 10.

Hamilton beds Near Leroy N. Y.

C. D. Walcott, coll. 1878

781 $\frac{6505}{3}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 65, fig. 11.

Hamilton beds — Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1865

On slab with type of Fistulipora multaculeata, Pal. N. Y. v. 6, pl. 59, fig. 11.

Hederella gracilior Clarke

782 $\frac{6505}{1}$ TYPE: PLASTOTYPE Hederella gracilior Clarke. New York state museum memoir 3. 1900. p. 62, pl. 9, fig. 10.

Oriskanian — Becraft mountain, Hudson N. Y.

On slab with type of H. magna, N. Y. state mus. mem. 3, pl. 9, fig. 10.

Hederella magna Hall

783 $\frac{6505}{1}$ TYPE Hederella magna Hall. Transactions of the Albany institute. 1881. 10:195.

Hall & Simpson. Paleontology of New York. 1887 v. 6, pl. 65, fig. 15.

Hamilton beds — York N. Y.

C. Van Deloo, coll. 1878

784 $\frac{6506}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 9, fig. 10.

Oriskanian — Becraft mountain, Hudson N. Y.

On slab with type of Hederella gracilior, N. Y. state mus. mem. 3, pl. 9, fig. 10.

Hederella ramea Clarke

785 $\frac{6507}{1}$ TYPE: PLASTOTYPE Hederella ramea Clarke. New York state museum memoir 3. 1900. p. 62, pl. 9, fig. 9.

Oriskanian — Becraft mountain, Hudson N. Y.

HEMITRYPA Phillips

Hemitrypa biserialis Hall

786 $\frac{6520}{1}$ TYPE Fenestella (Hemitrypa) biserialis Hall. 32d annual report of the New York state museum of natural history. 1879. p. 174.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 13, 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 13, 18.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6520/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 16.

New Scotland beds Near Clarksville N. Y.

Hemitrypa biserialis Hall *var.* **exilis** Hall & Simpson

6530/1 TYPE Fenestella (Hemitrypa) biserialis Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 14.

Fenestella (Hemitrypa) biserialis *var.* exilis Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 57, pl. 22, fig. 14.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Rhombopora canaliculata, Pal. N. Y. v. 6, pl. 11, fig. 12.

6530/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 15.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 15.

New Scotland beds Near Clarksville N. Y.

LICHENALIA Hall

Lichenalia colliculata Hall

6540/1 TYPE Lichenalia colliculata Hall. Transactions of the Albany institute. 1881. 10: 184 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 36 (not figured).

Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 200 (not figured).

Simpson. 14th annual report of the New York state geologist. 1895. pl. 22, fig. 8, 9.

Hamilton beds York N. Y.

C. Van Deloo, coll. 1878

Lichenalia complexa (exata by error) *see* Selenopora complexa

Lichenalia (Selenopora) complexa *see* Selenopora complexa

Lichenalia confusa Hall & Simpson

791 $\frac{22}{1}\frac{11}{1}$ TYPE: 2 specimens. Lichenalia confusa Hall & Simpson. Paleontology of New York. 1887. 6:204 (not figured).

Hamilton beds — Near Leroy N. Y.

C. D. Walcott, coll. 1878

Lichenalia constricta *see* Fistulipora constricta

Lichenalia cornuta Hall & Simpson

792 $\frac{22}{1}\frac{12}{2}$ TYPE Lichenalia cornuta Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 203 (not figured).

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 6.

Hamilton beds — York N. Y.

C. Van Deloo, coll. 1878

Lichenalia crassa Hall

793 $\frac{22}{1}\frac{13}{3}$ TYPE Trematopora crassa Hall. 32d annual report of the New York state museum of natural history. 1879. p. 152.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 21, 22.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 21, 22.

New Scotland beds — Schoharie N. Y.

J. Gebhard, purchase

Lichenalia cultellata Hall

794 $\frac{22}{1}\frac{14}{4}$ TYPE Lichenalia cultellata Hall. 3d annual report of the New York state geologist. 1884. p. 35.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 64, fig. 1, 2.

Hamilton beds — Fall brook, 4 miles east of Canandaigua lake, N. Y.

C. Van Deloo and M. Sheehy, coll. 1886

Lichenalia dissimilis *see* Paleschara? dissimilis

Lichenalia distans Hall

795 $\frac{22}{1}\frac{15}{5}$ TYPE Lichenalia distans Hall. 32d annual report of the New York state museum of natural history. 1879. p. 157.

Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 8, 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 8, 9.

New Scotland beds — Schoharie N. Y.

J. Gebhard purchase

Lichenalia foliacea *see* Ceramopora (Lichenalia) foliacea

Lichenalia (Ceramopora) imbricella *see* Ceramopora imbricella

Lichenalia interaspera Hall & Simpson

6547/1 TYPE Fistulipora interaspera Hall & Simpson. Paleontology of New York. 1887. 6:218 (not figured).

Lichenalia interaspera Simpson. 14th annual report of the New York state geologist. 1895. pl. 22, fig. 10.

Hamilton beds — Darien N. Y.

C. A. White, coll. 1860

Lichenalia maculosa Hall

6548/1 TYPE Trematopora maculosa Hall. 26th annual report of the New York state museum of natural history. 1874. p. 106.

Hall. 2d annual report of the New York state geologist. 1883. pl. 14, fig. 1, 6, 8.

Lichenalia maculosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 14, fig. 1, 6, 8.

New Scotland beds — Clarksville N. Y.

6548/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 14, fig. 3–5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 14, fig. 3–5.

New Scotland beds — Clarksville N. Y.

Lichenalia operculata Hall & Simpson

6549/1 TYPE Lichenalia operculata Hall & Simpson. Paleontology of New York. 1887. 6:205 (not figured).

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 7.

Hamilton beds — York N. Y.

Lichenalia permarginata Hall

800 $\frac{6850}{1}$ TYPE Lichenalia permarginata Hall. Transactions of the Albany institute. 1881. 10:10 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 20.

Hall & Simpson. Paleontology of New York. 1887. v 6, pl. 26, fig. 20.

Onondaga limestone — Onondaga Valley N. Y.
C. A. White, coll. 1860

Lichenalia pustulosa *see* Fistulipora pustulosa.

Lichenalia ramosa Hall & Simpson

801 $\frac{6851}{1}$ TYPE: 2 specimens. Lichenalia ramosa Hall & Simpson. Paleontology of New York. 1887. 6:199 (not figured).

Hamilton beds — West Williams Ont.
J. De Cew, coll. 1865

Lichenalia serialis Hall

802 $\frac{6852}{1}$ TYPE Lichenalia torta Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 6.

Lichenalia serialis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 6.

New Scotland beds — Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

803 $\frac{6852}{2}$ TYPE (tortuosa in error) Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 17.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 17.

New Scotland beds — Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

On block with Callotrypa heteropora, Pal. N. Y. v. 6, pl. 11, fig. 33.

Lichenalia subtrigona Hall & Simpson

804 $\frac{6853}{1}$ TYPE Lichenalia subtrigona Hall & Simpson. Paleontology of New York. 1887. 6: 196 (not figured).

Hall. 7th annual report of the New York state geologist. 1888. pl. 15, fig. 3, 4.

Hamilton beds — West Williams Ont.
J. De Cew, coll. 1865

Lichenalia torta Hall

$\frac{6554}{1}$ TYPE Lichenalia torta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 157.

Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 1.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 1.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

$\frac{6554}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 2.

Coeymans limestone Schoharie N. Y.

J. Gebhard purchase

$\frac{6554}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 3.

Coeymans limestone Schoharie N. Y.

J. Gebhard purchase.

$\frac{6554}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 4, 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 4, 5.

New Scotland beds Schoharie N. Y.

$\frac{6554}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 7.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

Lichenalia torta (tortuosa in error) *see* Lichenalia serialis

Lichenalia vesiculata Hall & Simpson

810 TYPE Lichenalia vesiculata Hall & Simpson. Paleontology of New York. 1887. 6: 198, pl. 59, fig. 1.
Hamilton beds — Hill's gulch, 4 miles south of Leroy N. Y.
C. D. Walcott, coll. 1878

811 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 57, fig. 14–19.
Hamilton beds — York N. Y.
C. Van Deloo, coll. 1878

LOCULIPORA Hall & Simpson

Loculipora perforata Hall

812 TYPE Fenestella perforata Hall. 36th annual report of the New York state museum of natural history. 1884. p. 65.
Fenestella (Loculipora) perforata Hall. 7th annual report of the New York state geologist. 1888. pl. 10, fig. 1, 3, 5, 7, 8, 10, 12.
Hamilton beds — Near Darien N. Y.
C. Van Deloo, coll. 1864

813 TYPE? Hall. 7th annual report of the New York state geologist. 1888. pl. 10, fig. 2.
Hamilton beds — Near Alden, Erie co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

814 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 10, fig. 9, 11, 13.
Hamilton beds — Near Canandaigua lake, N. Y.

MONOTRYPA Nicholson

Monotrypa ? spinosula (in error) *see* Monotrypa ? spinulosa

Monotrypa ? spinulosa Hall & Simpson

815 TYPE Paleschara? bilateralis Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 25.
Monotrypa ? spinosula (in error) Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 25.
New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

MONOTRYPELLA Ulrich

Monotrypella densa Hall

1620/1 TYPE Trematopora densa Hall. 26th annual report of the New York state museum of natural history. 1874. p. 105.

Trematopora (Chaetetes) densa Hall. 2d annual report of the New York state geologist. 1883. pl. 10, fig. 11.

Chaetetes (Monotrypella) densus Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 10, fig. 11.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

NEMATAXIS Hall & Simpson

Nemataxis simplex Hall & Simpson

1640/1 TYPE Nemataxis simplex Hall & Simpson. Paleontology of New York. 1887. 6: 193, pl. 66, fig. 17, 18.

Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Paleschara ? bilateralis *see* Paleschara ? (Lichenalia ?) bilateralis and Monotrypa ? spinulosa

PALESCHARA Hall

Paleschara ? (Lichenalia ?) bilateralis Hall

1660/1 TYPE Paleschara? bilateralis Hall. 32d annual report of the New York state museum of natural history. 1879. p. 160.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 22, 23.

Paleschara? (Lichenalia?) bilateralis Hall and Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 22, 23.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Paleschara ? dissimilis Hall

1661/1 TYPE Lichenalia dissimilis Hall. 32d annual report of the New York state museum of natural history. 1879. p. 158.

Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 10, 11.

Paleschara? dissimilis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 10, 11.

New Scotland beds Schoharie co. N. Y.

820 $\frac{6661}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 15, fig. 12, 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 15, fig. 12, 13.

New Scotland beds Schoharie co. N. Y.
J. Gebhard purchase

Paleschara incrustans Hall

821 $\frac{6662}{1}$ TYPE Paleschara incrustans Hall. 26th annual report of the New York state museum of natural history. 1874. p. 107.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 18, 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 18, 19.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Paleschara intercella Hall

822 $\frac{6663}{1}$ TYPE Paleschara intercella Hall. Transactions of the Albany institute. 1881. 10:179 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, p. 237 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds West Williams Ont.
J. De Cew, coll. 188

823 $\frac{6663}{2}$ TYPE Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds York N. Y.
C. Van Deloo, coll. 187

Paleschara pertenuis Hall

824 $\frac{6664}{1}$ TYPE Paleschara pertenuis Hall. Transactions of the Albany institute. 1881. 10:179.

Paleschara ? ? (Lichenalia ?) pertenuis Hall. 3d annual report of the New York state geologist. 1884. p. 7 (not figured).

Paleschara pertenuis Hall. 10th annual report of the New York state geologist. 1891. p. 37 (not figured).

Hamilton beds Darien Center, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

Paleschara ? ? (Lichenalia ?) pertenuis *see* Paleschara pertenuis

Paleschara ? radiata Hall

6665/1 TYPE Paleschara ? radiata Hall. 32d annual report of the New York state museum of natural history. 1879. p. 160.

Hall. 2d annual report of the New York state geologist. 1883. pl. 16, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 16, fig. 13, 14.

New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Paleschara reticulata Hall

6666/1 TYPE Paleschara reticulata Hall. Transactions of the Albany institute. 1881. 10:179.

Hall. 3d annual report of the New York state geologist. 1884. p. 6 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 38 (not figured).

Hamilton beds York N. Y.
C. Van Deloo, coll. 1878

On slab with Fistulipora ? umbilicata, Trans. Alb. inst. 10:185 (not figured).

Paleschara variacella Hall

6667/1 TYPE Paleschara variacella Hall. Transactions of the Albany institute. 1881. 10:179 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 6 (not figured).

Hall & Simpson. Paleontology of New York. 1887. 6:237 (not figured).

Hall. 10th annual report of the New York state geologist. 1891. p. 39 (not figured).

Hamilton beds — York N. Y.

C. Van Deloo, coll. 1878

PHYLLOPORINA Ulrich

Phylloporina fenestrata Hall (sp.)

828 $\frac{0680}{1}$ TYPE Retepora fenestrata Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 178, pl. 2, fig. 1a-d.

Trenton limestone — Lowville, Lewis co. N. Y.

Phylloporina incepta Hall (sp.)

829 $\frac{0681}{1}$ TYPE Retepora incepta Hall. Paleontology of New York. 1847. 1: 15, pl. 4, fig. 1a, 1b.

Chazy limestone — Chazy, Clinton co. N. Y.

POLYPORA McCoy

Polypora (sp. indet.)

830 $\frac{0390}{1}$ TYPE Fenestella sp.? Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 13.

Fenestella (Polypora) (sp. indet.) Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 13.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of **Callotrypa paucipora**, Pal. N. Y. v. 6, pl. 23, fig. 21.

Polypora arta Hall

831 $\frac{0391}{1}$ TYPE Fenestella arta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 105.

Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 4, 5.

Fenestella (Polypora) arta Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 4, 5.

New Scotland beds — Near Clarksville N. Y.

I. E. Brown and C. Van Deloo, coll. 1876

832 $\frac{0393}{1}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 6, 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 6, 7.

New Scotland beds — Near Clarksville N. Y.

I. E. Brown and C. Van Deloo, coll. 1876

On slab with type of P. arta, pl. 18, fig. 4, 5.

Polypora aspectans Hall

6703/1 TYPE Fenestella aspectus (in error) Hall. 36th annual report of the New York state museum of natural history. 1883. p. 59.

Fenestella (Polypora) aspectans Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 10–14.

Hamilton beds — Bellona, Yates co. N. Y.

Polypora carinella Hall

6704/1 TYPE Fenestella (Polypora) (n. sp.?) Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 1, 2.

Fenestella (Polypora) carinella Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 1, 2.

Onondaga limestone — Near Buffalo N. Y.
C. A. White, coll. 1860

Polypora celsipora Hall

6705/1 TYPE Fenestella celsipora Hall. Transactions of the Albany institute. 1881. 10: 24 (abstract).

Fenestella (Polypora) celsipora? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 5-7.

Fenestella (Polypora) celsipora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 5–7.

Onondaga limestone — Near Leroy N. Y.
C. A. White, coll. 1861

6705/2 TYPE ? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 8.

Onondaga limestone — Walpole Ont.
C. D. Walcott, coll. 1878

6705/3 TYPE ?? Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 9, 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 9, 10.

Onondaga limestone — Near Caledonia,
Livingston co. N. Y.
C. A. White, coll. 18

848 a7g02 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 8.

Onondaga limestone — Near Buffalo N. Y.

Polypora elongata Hall

849 a1g10 TYPE Fenestella (Polypora) elongata Hall. 2d annual report of the New York state geologist. 1883. pl. 33, fig. 3, 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 42, fig. 3, 4.

Onondaga limestone — Onondaga Valley N. Y.
C. A. White, coll. 1861

Polypora eudora Hall

850 a1g11 TYPE Fenestella eudora Hall. 32d annual report of the New York state museum of natural history. 1879. p. 165.

Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 3, 4.

Fenestella (Polypora) eudora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 3, 4.

New Scotland beds — Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

851 a1g11 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 5.

New Scotland beds — Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

852 a1g11 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 6, 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 6, 7.

New Scotland beds — Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

Polypora flabelliformis Hall

6712/1 TYPE Fenestella flabelliformis Hall. Transactions of the Albany institute. 1881. 10:23 (abstract).

Fenestella (Polypora) flabelliformis Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 11, 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 11, 12.

Onondaga limestone — Onondaga Valley N. Y.
C. A. White, coll. 1860

Polypora largissima Hall

6713/1 TYPE Fenestella largissima Hall. Transactions of the Albany institute. 1881. 10:22 (abstract).

Fenestella (Polypora) largissima Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 8, 9.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 8, 9.

Onondaga limestone — Central New York
Pickett collection

Polypora latitruncata Hall

6714/1 TYPE Fenestella latitruncata Hall. 36th annual report of the New York state museum of natural history. 1883. p. 58.

Fenestella (Polypora) latitruncata Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 1, 8.

Hamilton beds — Alden N. Y.

6714/2 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 2, 7.

Hamilton beds — West Williams Ont.
J. De Cew, coll. 1865

6714/3 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 3, 6.

Hamilton beds — Near Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

6714/4 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 4.

Hamilton beds — Near Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

859 $\frac{67}{8}\frac{14}{}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 5.

Hamilton beds — Darien Center, Genesee co. N. Y.
C. A. White, coll. 1864

860 $\frac{67}{6}\frac{14}{}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 13, fig. 9.

Hamilton beds — Near Darien Center N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

Polypora lilaea Hall

861 $\frac{67}{1}\frac{15}{}$ TYPE Polypora lilaea Hall. 26th annual report of the New York state museum of natural history. 1874. p. 96.

Retepora (n. sp.) Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 21, 22.

Fenestella (Polypora) lilaea Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 21, 22.

New Scotland beds — Schoharie N. Y.

Polypora multiplex Hall

862 [illegible] TYPE Fenestella multiplex Hall. 36th annual report of the New York state museum. 1883. p. 57.

Fenestella (Polypora) multiplex Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 12, 13.

Hamilton beds — Moscow N. Y.
C. Van Deloo, coll. 1865

863 [illegible] TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 14.

Hamilton beds — Moscow N. Y.
C. Van Deloo, coll. 1865

Polypora obliqua Hall & Simpson

864 [illegible] TYPE Fenestella [illegible] Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 8, 9.

Fenestella (Polypora) obliqua Hall & Simpson. Paleontology of New York. 1887. 6:64, pl. 18, fig. 8, 9.

New Scotland beds — [illegible], Albany co. N. Y.
[illegible] Bowers and C. Van Deloo, coll. 1876

[illegible] Fenestella parasitica. Pal.
[illegible]

Polypora paxillata Hall

5 $\frac{6718}{1}$ TYPE Fenestella paxillata Hall. 32d annual report of the New York state museum of natural history. 1879. p. 164.

Fenestella papillata (in error) Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 10, 11.

Fenestella (Polypora) paxillata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 10, 11.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Fenestella curvijunctura, Pal. N. Y. v. 6, pl. 46, fig. 1, 2, and of F. quadrula, pl. 21, fig. 19, 20.

866 $\frac{6718}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 18, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 18, fig. 12.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Polypora perangulata Hall

867 $\frac{6719}{1}$ TYPE Fenestella perangulata Hall. Transactions of the Albany institute. 1881. 10: 23 (abstract).

Fenestella (Polypora) perangulata Hall. 2d annual report of the New York state geologist. 1883. pl. 30, fig. 13, 14.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 37, fig. 13, 14.

Onondaga limestone Caledonia N. Y.

Polypora propria Hall

868 $\frac{6720}{1}$ TYPE Fenestella propria Hall. Transactions of the Albany institute. 1881. 10: 22 (abstract).

Fenestella propria Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 10, 11.

Hall & Simpson. Paleontology of New York. 1887. v 6, pl. 34, fig. 10, 11.

Onondaga limestone Near Buffalo N. Y.

869 $\frac{6720}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 12.

Onondaga limestone Near Buffalo N. Y.

870 $\frac{6720}{3}$ PLASTOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 13.

Onondaga limestone Near Buffalo N. Y.

Polypora quadrangula Hall

871 $\frac{6721}{1}$ TYPE Fenestella quadrangula Hall. 36th annual report of the New York state museum of natural history. 1883. p. 68.

Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 7–13.

Hamilton beds Darien, Genesee co. N. Y.
C. Van Deloo, coll. 1885

On slab with type of Stictopora limata, Pal. N. Y. v. 4, pl. 61, fig. 16.

Polypora rigida Hall

872 $\frac{6722}{1}$ TYPE Fenestella rigida Hall. Transactions of the Albany institute. 1881. 10: 22 (abstract).

Fenestella (Polypora) rigida Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 1, 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 1, 2.

Onondaga limestone Thompson's lake, Albany co. N. Y.

873 $\frac{6722}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 27, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 34, fig. 3.

Onondaga limestone Thompson's lake, N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

POLYPORELLA Simpson

Polyporella fistulata Hall (sp.)

874 $\frac{6740}{1}$ TYPE Fenestella fistulata Hall. 36th annual report of the New York state museum of natural history. 1883. p. 59.

Fenestella (Polypora) fistulata Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 1, 11–16.

Hamilton shales — Near Alden N. Y.
C. Van Deloo, coll. 1874

875 $\frac{6740}{2}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 2, 3, 5.

Hamilton beds — Near Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

876 $\frac{6740}{3}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 4.

Hamilton beds — Near Darien N. Y.
C. A. White and C. Van Deloo, coll. 1864

877 $\frac{6740}{4}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 6.

Hamilton beds — Menteth's point, Canandaigua lake, N.Y.
C. A. White and C. Van Deloo, coll. 1860

878 $\frac{6740}{5}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 7.

Hamilton beds — Darien N. Y.
C. Van Deloo, coll. 1865

On slab with type of Rhombopora immersa, Pal. N. Y. v. 6, pl. 56, fig. 11.

879 $\frac{6740}{6}$ TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 12, fig. 9.

Hamilton beds — Darien N. Y.
C. A. White, coll. 1860

PRISMOPORA Hall

Prismopora dilatata Hall

880 $\frac{6750}{1}$ TYPE: PLASTOTYPE Prismopora dilatata Hall. Transactions of the Albany institute. 1881. 10:193.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 13, 14.

Hamilton beds — Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield and
C. Van Deloo, coll. 1857

Prismopora paucirama Hall

881 $\frac{67}{1}\frac{51}{1}$ TYPE Prismopora paucirama Hall. Transa
of the Albany institute. 1881. 10:17 (abstract).
Hall. 5th annual report of the New York state g
gist, advance sheets. 1886. pl. 29, fig. 16, 17.
Hall & Simpson. Paleontology of New York.
v. 6, pl. 29, fig. 16, 17.
Onondaga limestone Thompson's lake,
C. D. Walcott and C. Van Deloo, coll.

Prismopora sparsipora Hall

882 $\frac{67}{1}\frac{52}{1}$ TYPE Thallostigma sparsipora Hall. Tra
tions of the Albany institute. 1881. 10:13 (abstrac
Prismopora sparsipora Hall. 5th annu
port of the New York state geologist, advance sh
1886. pl. 32, fig. 24–26.
Hall & Simpson. Paleontology of New York.
v. 6, pl. 32, fig. 24–26.
Onondaga limestone Erie county,
883 $\frac{67}{2}\frac{52}{2}$ HYPOTYPE Hall. 5th annual report of the New
state geologist, advance sheets. 1886. pl. 32, fig. 27
Hall & Simpson. Paleontology of New York.
v. 6, pl. 32, fig. 27.
Onondaga limestone Erie county.
Ptilionella nodata *see* Reptaria nodata

PTILODICTYA Lonsdale

Ptilodictya lirata Hall

884 $\frac{67}{1}\frac{60}{1}$ TYPE Escharopora lirata Hall. 26th annual r
of the New York state museum of natural history.
p. 100.
Hall. 2d annual report of the New York state geo
1883. pl. 17, fig. 3.
Ptilodictya lirata Hall & Simpson. P
tology of New York. 1887. v. 6, pl. 17, fig. 3: pl.
fig. 20.
New Scotland beds Near Clarksville

Ptilodictya nebulosa Hall

885 $\frac{67}{1}\frac{63}{1}$ TYPE Escharopora nebulosa Hall. 26th
report of the New York state museum of natural h
1874. p. 99.

Escharopora (Ptilodictya) tenuis? Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 13.

Ptilodictya nebulosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 13.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

886 6761/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 14, 15.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 14, 15.

New Scotland beds — Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

887 6761/3 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 16

New Scotland beds — Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

888 6761/4 TYPE Paleschara? foliata Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 18.

New Scotland beds — Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Ptilodictya parallela Hall & Simpson

889 6762/1 TYPE Ptilodictya parallela Hall & Simpson. Paleontology of New York. 1887. 6: 270, pl. 61, fig. 7, 8.

Hamilton beds — Fall brook, Ontario co. N. Y.

Ptilodictya plumea Hall & Simpson

890 6763/1 TYPE Ptilodictya plumea Hall & Simpson. Paleontology of New York. 1887. 6: 271, pl. 61, fig. 9–12.

Hamilton beds — Hamburg-on-the-Lake N. Y.

Ptilodictya retiformis Hall & Simpson

891 6764/1 TYPE Ptilodictya retiformis Hall & Simpson. Paleontology of New York. 1887. 6: 272, pl. 61, fig. 13.

Hamilton beds — Alden N. Y.

Ptilodictya scutulata Hall

892 $\frac{6765}{1}$ TYPE Stictopora? scutulata Hall. Transactions of the Albany institute. 1881. 10: 191 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 47 (not figured).

Ptilodictya scutulata Hall & Simpson. Paleontology of New York. 1887. 6: 272 (not figured).

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

Ptilodictya tenuis Hall

893 $\frac{6766}{1}$ TYPE Escharapora tenuis Hall. 26th annual report of the New York state museum of natural history. 1874. p. 99.

Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 7, 8.

Ptilodictya tenuis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 7, 8.

894 $\frac{6766}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 11.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

PTILOPORA McCoy

Ptilopora nodosa Hall

895 $\frac{6770}{1}$ TYPE Ptilopora nodosa Hall. Transactions of the Albany institute. 1881. 10: 196.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 25.

Hamilton beds — Alden N. Y.

C. Van Deloo, coll. 1874

Ptilopora striata Hall

896 $\frac{6771}{1}$ TYPE Ptilopora striata Hall. Transactions of the Albany institute. 1881. 10: 196.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 30–32.

Hamilton beds — Moscow N. Y.

897 $\frac{6771}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 66, fig. 33.

Hamilton beds — West Williams Ont.

J. De Cew, coll. 1865

PTILOPORINA Hall

Ptiloporina disparilis Hall & Simpson

898 $\frac{6780}{1}$ PLASTOTYPE Fenestella (Ptiloporina) disparilis Hall & Simpson. Paleontology of New York. 1887. 6: 173, pl. 43, fig. 7.

Onondaga limestone — Walpole Ont.

Ptiloporina pinnata Hall & Simpson

899 $\frac{6781}{1}$ TYPE Ptiloporina pinnata Hall & Simpson. Paleontology of New York. 1887. 6:172, pl. 43, fig. 5, 6.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

REPTARIA Rolle

Reptaria nodata Hall

900 $\frac{6780}{1-3}$ TYPES: 3 specimens. Ptilionella nodata Hall. Transactions of the Albany institute. 1881. 10: 195 (not figured).

Hall. 3d annual report of the New York state geologist. 1884. p. 57 (not figured).

Reptaria nodata Hall & Simpson. Paleontology of New York. 1887. 6: 276 (not figured).

Hamilton beds — Western New York

Retepora (n. sp.) *see* Polypora lilaea

Retepora fenestrata *see* Phylloporina fenestrata

Retepora incepta *see* Phylloporina incepta

RETEPORINA d'Orbigny

Reteporina perundulata Hall

901 $\frac{6800}{1}$ TYPE Fenestella perundulata Hall. 36th annual report of the New York state museum of natural history. 1884. p. 63.

Fenestella (Reteporina) perundulata Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 1, 13.

Hamilton beds — Moscow N. Y.

902 $\frac{6800}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 2, 4, 11.

Hamilton beds — Moscow N. Y.

903 $\frac{6800}{3}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 3, 7.

Hamilton beds — Moscow N. Y.

904 6800/4 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 5.
Hamilton beds Moscow N. Y.

905 6800/5 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 6, 8, 14.
Hamilton beds Moscow N. Y.

906 6800/6 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 9.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865

907 6800/7 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 10.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

908 6800/8 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 12.
Hamilton beds York N. Y.
C. Van Deloo, coll. 1865

Reteporina rhombifera Hall

909 6801/1 TYPE Fenestella rhombifera Hall. Transactions of the Albany institute. 1881. 10: 32 (abstract).
Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 50, fig. 18.
Fenestella (Reteporina) rhombifera Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 50, fig. 18.
Onondaga limestone De Cewville Ont.

Reteporina striata Hall

910 6802/1 TYPE Fenestella striata Hall. 36th annual report of the New York state museum of natural history. 1884. p. 72.
Fenestella (Reteporina) striata Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 1, 2.
Hamilton beds Moscow N. Y.

911 6802/2 TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 3.
Hamilton beds Moscow N. Y.

$\frac{302}{3}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 4.
Hamilton beds Moscow N. Y.

$\frac{302}{4}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 5.
Hamilton beds Moscow N. Y.

$\frac{302}{6}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 6.
Hamilton beds Moscow N. Y.

RHINIDICTYA Ulrich

Rhinidictya fenestrata Hall (sp.)

$\frac{310}{1}$ TYPE Stictopora fenestrata Hall. Paleontology of New York. 1843. 1: 16, pl. 4, fig. 4c.
Chazy limestone Chazy, Clinton co. N. Y.

Rhinidictya granulosa Hall

$\frac{311}{1}$ TYPE Escharopora (Ptilodictya) lirata Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 6.
Rhinidictya? granulosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 6; pl. 23 A, fig. 18.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Rhombopora regularis, Pal. N. Y. v. 6, pl. 13, fig. 1.

$\frac{311}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23 A, fig. 19.
New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
On slab with type of Unitrypa praecursor, Pal. N. Y. v. 6, pl. 21, fig. 16.

RHOMBOPORA Meek

Rhombopora bispinulata Hall (sp.)

$\frac{320}{1}$ TYPE Callopora bispinulata Hall. Transactions of the Albany institute. 1881. 10: 182.
Trematopora (Orthopora) bispinulata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 27; pl. 56, fig. 18.
Hamilton beds Moscow N. Y.
C. Van Deloo, coll. 1865

919 $\frac{6820}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 28.
Hamilton beds Darien, Genesee co. N. Y.

920 $\frac{6820}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 29; pl. 56, fig. 17.
Hamilton beds Darien N. Y.

921 $\frac{6820}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. pl. 55, fig. 30; pl. 56, fig. 16.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Rhombopora canaliculata Hall (sp.)

922 $\frac{6821}{1}$ TYPE Trematopora canaliculata Hall. 32d annual report of the New York state museum of natural history. 1879. p. 151.

Trematopora? canaliculata Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 12; pl. 23, fig. 9.

Trematopora (Orthopora) canaliculata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 12; pl. 23, fig. 9.
Hamilton beds Near Reidsville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 8 and Rhombopora ovatipora, Pal. N. Y. v. 6, pl. 11, fig. 9, 10.

Rhombopora carinata Hall & Simpson (sp.)

923 $\frac{6822}{1}$ TYPE Trematopora (Orthopora) carinata Hall & Simpson. Paleontology of New York. 1887. 6: 179, pl. 55, fig. 2; pl. 56, fig. 3.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865
On slab with type of Acanthoclema hamiltonense, Pal. N. Y. v. 6, pl. 55, fig. 18, 19.

Rhombopora elongata Hall & Simpson (sp.)

924 $\frac{6823}{1}$ TYPE Trematopora (Orthopora) elongata Hall & Simpson. Paleontology of New York. 1887. 6: 183, pl. 55, fig. 11.
Hamilton beds Canandaigua lake, N. Y.

925 $\frac{6823}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 15.
Hamilton beds Owasco lake, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

Rhombopora granilinea Hall & Simpson (sp.)

926 $\frac{6824}{1}$ TYPE Trematopora (Orthopora) granilinea Hall & Simpson. Paleontology of New York, 1887. v. 6, pl. 23, fig. 2 (not described).
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 5.

Rhombopora hexagona Hall & Simpson (sp.)

927 $\frac{6825}{1}$ TYPE Trematopora (Orthopora) hexagona Hall & Simpson. Paleontology of New York. 1887. 6: 178, pl. 55, fig. 8; pl. 56, fig. 2.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

Rhombopora immersa Hall & Simpson (sp.)

928 $\frac{6826}{1}$ TYPE Trematopora (Orthopora) immersa Hall & Simpson. Paleontology of New York. 1887. 6: 185, pl. 56, fig. 11.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Rhombopora lineata Hall & Simpson (sp.)

929 $\frac{6827}{1}$ TYPE Trematopora (Orthopora) lineata Hall & Simpson. Paleontology of New York. 1887. 6: 181, pl. 55, fig. 3, 4; pl. 56, fig. 10.
Hamilton beds Darien Center N. Y.

930 $\frac{6827}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 6.
Hamilton shales Ogden's ferry, Cayuga lake, N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Rhombopora ornata Hall & Simpson (sp.)

931 $\frac{6828}{1}$ TYPE Trematopora (Orthopora) ornata Hall & Simpson. Paleontology of New York. 1887. 6: 184, pl. 55, fig. 1; pl. 56, fig. 4.
Hamilton beds Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

919 $\frac{6820}{2}$ TYPE Hall & Simpson. Paleontology of New York. v. 6, pl. 55, fig. 28.
Hamilton beds Darien, Genesee co. 1

920 $\frac{6820}{3}$ TYPE Hall & Simpson. Paleontology of New York. v. 6, pl. 55, fig. 29; pl. 56, fig. 17.
Hamilton beds Darien

921 $\frac{6820}{4}$ TYPE Hall & Simpson. Paleontology of New York. pl. 55, fig. 30; pl. 56, fig. 16.
Hamilton beds Darien
C. Van Deloo, coll.

Rhombopora canaliculata Hall (sp.)

922 $\frac{6821}{1}$ TYPE Trematopora canaliculata Hall. annual report of the New York state museum of n history. 1879. p. 151.

Trematopora? canaliculata Hall. 2d a report of the New York state geologist. 1883. p fig. 12; pl. 23, fig. 9.

Trematopora (Orthopora) canalicu Hall & Simpson. Paleontology of New York. v. 6, pl. 11, fig. 12; pl. 23, fig. 9.
Hamilton beds Near Reidsville, Albany co.
C. D. Walcott and C. Van Deloo, coll.
On slab with type of Callotrypa heteropora, N. Y. v. 6, pl. 13, fig. 8 and Rhombopora ovati Pal. N. Y. v. 6, pl. 11, fig. 9, 10.

Rhombopora carinata Hall & Simpson (sp.)

923 $\frac{6822}{1}$ TYPE Trematopora (Orthopora) carir Hall & Simpson. Paleontology of New York. 6: 179, pl. 55, fig. 2; pl. 56, fig. 3.
Hamilton beds West Williams
J. De Cew, coll.
On slab with type of Acanthoclema hamiltone Pal. N. Y. v. 6, pl. 55, fig. 18, 19.

Rhombopora elongata Hall & Simpson (sp.)

924 $\frac{6823}{1}$ TYPE Trematopora (Orthopora) elong Hall & Simpson. Paleontology of New York. 6: 183, pl. 55, fig. 11.
Hamilton beds Canandaigua lake, 1

925 $\frac{6825}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 15.
Hamilton beds Owasco lake, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

Rhombopora granilinea Hall & Simpson (sp.)

926 $\frac{6824}{1}$ TYPE Trematopora (Orthopora) granilinea Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 2 (not described).
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 5.

Rhombopora hexagona Hall & Simpson (sp.)

927 $\frac{6825}{1}$ TYPE Trematopora (Orthopora) hexagona Hall & Simpson. Paleontology of New York. 1887. 6: 178, pl. 55, fig. 8; pl. 56, fig. 2.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

Rhombopora immersa Hall & Simpson (sp.)

928 $\frac{6826}{1}$ TYPE Trematopora (Orthopora) immersa Hall & Simpson. Paleontology of New York. 1887. 6: 185, pl. 56, fig. 11.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Rhombopora lineata Hall & Simpson (sp.)

929 $\frac{6827}{1}$ TYPE Trematopora (Orthopora) lineata Hall & Simpson. Paleontology of New York. 1887. 6: 181, pl. 55, fig. 3, 4; pl. 56, fig. 10.
Hamilton beds Darien Center N. Y.

930 $\frac{6827}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 6.
Hamilton shales Ogden's ferry, Cayuga lake, N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Rhombopora ornata Hall & Simpson (sp.)

931 $\frac{6828}{1}$ TYPE Trematopora (Orthopora) ornata Hall & Simpson. Paleontology of New York. 1887. 6: 184, pl. 55, fig. 1; pl. 56, fig. 4.
Hamilton beds Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

904 $\frac{6800}{4}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 5.
Hamilton beds Moscow N. Y.

905 $\frac{6800}{5}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 6, 8, 14.
Hamilton beds Moscow N. Y.

906 $\frac{6800}{6}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 9.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865

907 $\frac{6800}{7}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 10.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

908 $\frac{6800}{8}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 2, fig. 12.
Hamilton beds York N. Y.
C. Van Deloo, coll. 1865

Reteporina rhombifera Hall

909 $\frac{6801}{1}$ TYPE Fenestella rhombifera Hall. Transactions of the Albany institute. 1881. 10: 32 (abstract).
Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 50, fig. 18.
Fenestella (Reteporina) rhombifera Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 50, fig. 18.
Onondaga limestone De Cewville Ont.

Reteporina striata Hall

910 $\frac{6802}{1}$ TYPE Fenestella striata Hall. 36th annual report of the New York state museum of natural history. 1884. p. 72.
Fenestella (Reteporina) striata Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 1, 2.
Hamilton beds Moscow N. Y.

911 $\frac{6802}{2}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 3.
Hamilton beds Moscow N. Y.

2 $\frac{6802}{3}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 4.
Hamilton beds Moscow N. Y.

3 $\frac{6802}{4}$ TYPE: PLASTOTYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 5.
Hamilton beds Moscow N. Y.

4 $\frac{6802}{5}$ TYPE Hall. 6th annual report of the New York state geologist. 1887. pl. 3, fig. 6.
Hamilton beds Moscow N. Y.

RHINIDICTYA Ulrich

Rhinidictya fenestrata Hall (sp.)

5 $\frac{6810}{1}$ TYPE Stictopora fenestrata Hall. Paleontology of New York. 1843. 1: 16, pl. 4, fig. 4c.
Chazy limestone Chazy, Clinton co. N. Y.

Rhinidictya granulosa Hall

6 $\frac{6811}{1}$ TYPE Escharopora (Ptilodictya) lirata Hall. 2d annual report of the New York state geologist. 1883. pl. 17, fig. 6.
Rhinidictya? granulosa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 17, fig. 6; pl. 23 A, fig. 18.
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Rhombopora regularis, Pal. N. Y. v. 6, pl. 13, fig. 1.

7 $\frac{6811}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23 A, fig. 19.
New Scotland beds Near Clarksville N. Y.
L. E. Brown and C. Van Deloo, coll. 1876
On slab with type of Unitrypa praecursor, Pal. N. Y. v. 6, pl. 21, fig. 16.

RHOMBOPORA Meek

Rhombopora bispinulata Hall (sp.)

8 $\frac{6820}{1}$ TYPE Callopora bispinulata Hall. Transactions of the Albany institute. 1881. 10: 182.
Trematopora (Orthopora) bispinulata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 27; pl. 56, fig. 18.
Hamilton beds Moscow N. Y.
C. Van Deloo, coll. 1865

919 6820/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 28.
Hamilton beds Darien, Genesee co. N. Y.

920 6820/3 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 29; pl. 56, fig. 17.
Hamilton beds Darien N. Y.

921 6820/4 TYPE Hall & Simpson. Paleontology of New York. 1887. pl. 55, fig. 30; pl. 56, fig. 16.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Rhombopora canaliculata Hall (sp.)

922 6821/1 TYPE Trematopora canaliculata Hall. 3d annual report of the New York state museum of natural history. 1879. p. 151.

Trematopora? canaliculata Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 12; pl. 23, fig. 9.

Trematopora (Orthopora) canaliculata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 12; pl. 23, fig. 9.
Hamilton beds Near Reidsville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 8 and Rhombopora ovatipora, Pal. N. Y. v. 6, pl. 11, fig. 9, 10.

Rhombopora carinata Hall & Simpson (sp.)

923 6822/1 TYPE Trematopora (Orthopora) carinata Hall & Simpson. Paleontology of New York. 1887. 6: 179, pl. 55, fig. 2; pl. 56, fig. 3.
Hamilton beds West Williams Ont.
J. De Cew, coll. 1865
On slab with type of Acanthoclema hamiltonense, Pal. N. Y. v. 6, pl. 55, fig. 18, 19.

Rhombopora elongata Hall & Simpson (sp.)

924 6823/1 TYPE Trematopora (Orthopora) elongata Hall & Simpson. Paleontology of New York. 1887. 6: 183, pl. 55, fig. 11.
Canandaigua lake, N. Y.

6823/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 15.
Hamilton beds Owasco lake, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

Rhombopora granilinea Hall & Simpson (sp.)

6824/1 TYPE Trematopora (Orthopora) granilinea Hall & Simpson. Paleontology of New York, 1887. v. 6, pl. 23, fig. 2 (not described).
New Scotland beds Near Clarksville N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Callotrypa heteropora, Pal. N. Y. v. 6, pl. 13, fig. 5.

Rhombopora hexagona Hall & Simpson (sp.)

6825/1 TYPE Trematopora (Orthopora) hexagona Hall & Simpson. Paleontology of New York. 1887. 6: 178, pl. 55, fig. 8; pl. 56, fig. 2.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

Rhombopora immersa Hall & Simpson (sp.)

6826/1 TYPE Trematopora (Orthopora) immersa Hall & Simpson. Paleontology of New York. 1887. 6: 185, pl. 56, fig. 11.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Rhombopora lineata Hall & Simpson (sp.)

6827/1 TYPE Trematopora (Orthopora) lineata Hall & Simpson. Paleontology of New York. 1887. 6: 181, pl. 55, fig. 3, 4; pl. 56, fig. 10.
Hamilton beds Darien Center N. Y.

6827/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 6.
Hamilton shales Ogden's ferry, Cayuga lake, N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Rhombopora ornata Hall & Simpson (sp.)

6828/1 TYPE Trematopora (Orthopora) ornata Hall & Simpson. Paleontology of New York. 1887. 6: 184, pl. 55, fig. 1; pl. 56, fig. 4.
Hamilton beds Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Rhombopora ovatipora Hall (sp.)

932 6820/1 TYPE Trematopora ovatipora Hall. 32d an report of the New York state museum of natural hist 1879. p. 151.

Trematopora? ovatipora Hall. 2d an report of the New York state geologist. 1883. pl. fig. 9, 10.

Trematopora (Orthopora) ovatipo Hall & Simpson. Paleontology of New York. 1887. v pl. 11, fig. 9, 10; pl. 23, fig. 5.

New Scotland beds Near Clarksville N.

C. D. Walcott and C. Van Deloo, coll. 1

On slab with type of Rhombopora canalicula Pal. N. Y. v. 6, pl. 11, fig. 12.

933 6820/2 TYPE Hall. 2d annual report of the New York st geologist. 1883. pl. 11, fig. 11.

Hall & Simpson. Paleontology of New York. 18 v. 6, pl. 11, fig. 11.

New Scotland beds Near Clarksville N.

C. D. Walcott and C. Van Deloo, coll. 18

On slab with type of Diamesopora constrict Pal. N. Y. v. 6, pl. 10, fig. 14, 15.

Rhombopora parallela Hall (sp.)

934 6830/1 TYPE Trematopora parallela Hall. 32d nual report of the New York state museum of natu history. 1879. p. 152.

Trematopora (Orthopora) parallela H & Simpson. Paleontology of New York. 1887. v. pl. 23, fig. 7, 8.

New Scotland beds Near Clarksville N.

C. D. Walcott and C. Van Deloo, coll. 18

On slab with type of Callopora cellulosa, Pal. N. v. 6, pl. 12, fig. 7.

Rhombopora regularis Hall (sp.)

935 6831/1 TYPE Trematopora regularis Hall. 26th a nual report of the New York state museum of natur history. 1874. p. 106.

Hall. 2d annual report of the New York state geol pl. 11, fig. 2.

Trematopora (Orthopora) regularis Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

936 6831/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 7.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 7.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Thamniscus variolatus, Pal. N. Y. v. 6, pl. 22, fig. 46.

937 6831/3 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 8.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 8.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Callotrypa paucipora, Pal. N. Y. v. 6, pl. 23, fig. 21.

938 6831/4 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 1.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 1.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

939 6831/5 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 2.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 2.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

940 6831/6 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 3.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

941 $\frac{6831}{7}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 1.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

On slab with type of Coelocaulis venusta, Pal. N. Y. v. 6, pl. 12, fig. 21, 22.

942 $\frac{6831}{8}$ TYPE Hall & Simpson. Paleontology of New York. 1887 v. 6, pl. 26, fig. 5, 6.

Onondaga limestone Caledonia, Livingston co. N. Y.

C. A. White, coll. 1860

Rhombopora reticulata Hall & Simpson (sp)

943 $\frac{6832}{1}$ TYPE Trematopora (Orthopora) reticulata Hall & Simpson. Paleontology of New York. 1887. 6: 179, pl. 55, fig. 9; pl. 56, fig. 5.

Hamilton beds Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of Stictopora incisurata, Pal. N. Y. v. 6, pl. 60, fig. 2.

Rhombopora rhombifera Hall (sp.)

944 $\frac{6833}{1}$ TYPE Trematopora rhombifera Hall. 26th annual report of the New York state museum of natural history. 1874. p. 103.

Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 15a.

Trematopora (Orthopora) rhombifera Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 15a.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

945 $\frac{6833}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 17.

Hall & Simpson. Paleontology of New York. 1887. v. 6. pl. 11, fig. 17.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

946 $\frac{6833}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 18.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6833/4 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 19.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 19.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6833/5 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 11, fig. 20; pl. 13, fig. 11.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 11, fig. 20; pl. 13, fig. 11.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6833/6 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 11.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Callopora cellulosa, Pal. N. Y. v. 6, pl. 12, fig. 7.

6833/7 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23, fig. 12.

New Scotland beds — Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

Rhombopora scutulata Hall (sp.)

1 6834/1 TYPE Trematopora scutulata Hall. Transactions of the Albany institute. 1881. 10:6 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 24, fig. 7, 8.

Trematopora (Orthopora) scutulata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 26, fig. 7, 8.

Onondaga limestone — Central New York

Rhombopora subquadrata Hall (sp.)

52 6835/1 TYPE Trematopora subquadrata Hall. Transactions of the Albany institute. 1881. 10:181.

Trematopora (Orthopora) subquadrata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 10; pl. 56, fig. 1.

Hamilton beds — Darien Center, N. Y.

953 $\frac{8836}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 6.
Hamilton beds Darien Center N. Y.

Rhombopora tortalinea Hall & Simpson (sp.)

954 $\frac{8836}{1}$ TYPE Trematopora (Orthopora) tortalinea Hall & Simpson. Paleontology of New York. 1887. 6: 180, pl. 56, fig. 9.
Hamilton beds Hamburg-on-the-Lake, Erie co. N Y.

Rhombopora transversa Hall (sp.)

955 $\frac{8837}{1}$ HYPOTYPE Trematopora transversa Hall. Transactions of the Albany institute. 1881. 10: 180.
Rhombopora transversa Simpson. 14th annual report of the New York state geologist. 1895. pl. 19, fig. 13.
Hamilton beds West Hamburg, Erie co. N. Y.

SELENOPORA Hall

Selenopora complexa Hall

956 $\frac{8850}{1}$ TYPE Lichenalia complexa (exata by error) Hall. Transactions of the Albany institute. 1881. 10: 11 (abstract).
Selenopora complexa Hall. 5th annual report of the New York state geologist. 1886. pl. 31, fig. 19.
Lichenalia (Selenopora) complexa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 31, fig. 19.
Onondaga limestone Onondaga Valley N. Y.
C. A. White, coll. 1860

957 $\frac{8850}{2}$ TYPE Hall. 5th annual report of the New York state geologist. 1886. pl. 31, fig. 20.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 31, fig. 20.
Onondaga limestone Onondaga Valley N. Y.
C. A. White, coll. 1860

SEMIOPORA Hall

Semiopora bistigmata Hall

958 $\frac{8860}{1}$ TYPE Semiopora bistigmata Hall. Transactions of the Albany institute. 1881. 10: 193.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl 62 fig. 27–29.
Hamilton beds West Williams Ont.

STICTOPORA Hall

Stictopora alternata Hall & Simpson

6870/1 TYPE Stictopora alternata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 23 A, fig. 21.
Helderbergian Clarksville N. Y.

Stictopora angularis Hall & Simpson

6871/1 TYPE Stictopora angularis Hall & Simpson. Paleontology of New York. 1887. 6:252, pl. 61, fig. 23.
Hamilton beds Near Leroy N. Y.
C. D. Walcott, coll. 1878

Stictopora bifurcata Hall & Simpson

6872/1 TYPE Stictopora bifurcata Hall & Simpson. Paleontology of New York. 1887. 6:254, pl. 63, fig. 17.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Stictopora crenulata Hall

6873/1 TYPE Stictopora crenulata Hall. 3d annual report of the New York state geologist. 1884. p. 44.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 22.
Hamilton shales Alden N. Y.
C. Van Deloo, coll. 1874

Stictopora dichotoma *see* Stictopora subcarinata

Stictopora divergens Hall & Simpson

6874/1 TYPE Stictopora divergens Hall & Simpson. Paleontology of New York. 1887. 6:257, pl. 63, fig. 18, 19.
Hamilton beds Darien Center N. Y.
On slab with type of Acanthoclema sulcatum, Pal. N. Y. v. 6, pl. 55, fig. 7.

Stictopora fenestrata *see* Rhinidictya fenestrata

Stictopora fruticosa Hall

6875/1 TYPE Stictopora fruticosa Hall. Transactions of the Albany institute. 1881. 10:14 (abstract).
Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 12–14.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 12–14.
Onondaga limestone Leroy N. Y.

Stictopora granatula Hall & Simpson

965 $\frac{6 \cdot 7 \cdot 18}{1}$ TYPE Trematopora rhombifera Hall. 2d ar report of the New York state geologist. 1883. pl. 11, fi

Stictopora granatula Hall & Simpson. Pa tology of New York. 1887. v. 6, pl. 11, fig. 16; pl. fig. 17.

New Scotland beds — Near Clarksville N

Stictopora granifera Hall

966 $\frac{6 \cdot 8 \cdot 7 \cdot 1}{1}$ TYPE Stictopora granifera Hall. Transact of the Albany institute. 1881. 10: 191.

Hall & Simpson. Paleontology of New York. 1 v. 6, pl 61, fig. 1.

Hamilton beds — Near Pavilion, Genesee co. N

C. A. White and C. Van Deloo, coll. 1

967 $\frac{6 \cdot 8 \cdot 7 \cdot 1}{2}$ TYPE Hall & Simpson. Paleontology of New Y 1887. v. 6, pl. 61, fig. 2.

Hamilton beds — Vincent, Ontario co. N.

C. A. White and C. Van Deloo, coll. 1

968 $\frac{6 \cdot 8 \cdot 7 \cdot 1}{3}$ TYPE Hall & Simpson. Paleontology of New Yo 1887. v. 6, pl. 61, fig. 3.

Hamilton beds — York N.

969 $\frac{6 \cdot 8 \cdot 7 \cdot 1}{4}$ TYPE Hall & Simpson. Paleontology of New Yo 1887. v. 6, pl. 61, fig. 5.

Hamilton beds — York N.

C. Van Deloo, coll. 18

970 $\frac{6 \cdot 8 \cdot 7 \cdot 1}{5}$ TYPE Hall & Simpson. Paleontology of New Yo 1887. v. 6, pl. 61, fig. 6.

Hamilton beds — Bellona, Yates co. N.

J. W. Hall and C. Van Deloo, coll. 18

Stictopora incisurata Hall

971 $\frac{6 \cdot 8 \cdot 7 \cdot 2}{1}$ TYPE Stictopora incisurata Hall. Trans tions of the Albany institute. 1881. 10: 189.

Hall & Simpson. Paleontology of New York. 18 v. 6, pl. 60, fig. 1.

Hamilton beds — Near Vincent, Ontario co. N.

C. A. White and C. Van Deloo, coll. 1

TYPE Hall & Simpson. Paleontology of New Yo v. 6, pl. 60, fig. 2.

ton beds — Bellona, Yates co. N.

J. W. Hall and C. Van Deloo, coll. 1

$\frac{1878}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 3.

Hamilton beds Near Lodi landing, Seneca lake, N.Y.
J. W. Hall and C. Van Deloo, coll. 1866

On slab with types of Stictopora incisurata, Pal. N. Y. v. 6, pl. 60, fig. 11 and Acrogenia prolifera, pl. 63, fig. 12.

$\frac{1878}{4}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 7.

Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{1878}{5}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 8.

Hamilton beds Fall brook, Gorham, Ontario co. N. Y.

$\frac{1878}{6}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 9, 10.

Hamilton beds Near Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{1878}{7}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 11.

Hamilton beds Near Lodi landing, Seneca lake, N.Y.
J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of pl. 60, fig. 3.

$\frac{1878}{8}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 12.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

$\frac{1878}{9}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 13, 14.

Hamilton beds Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{1878}{10}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 15.

Hamilton beds Near Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{1878}{11}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 16.

Hamilton beds Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860

982 $\frac{8818}{13}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 17.

Hamilton beds — Geneseo N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with type of **Taeniopora exigua**, Pal. N. Y. v. 6, pl. 62, fig. 15.

Stictopora incrassata Hall

983 $\frac{8818}{1}$ TYPE Stictopora incrassata Hall. Transactions of the Albany institute. 1881. 10:190.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 1, 4–6.

Hamilton beds — Near Menteth's point, Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

984 $\frac{8818}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 2, 3.

Hamilton beds — West Williams Ont.

Stictopora interstriata Hall

985 $\frac{8850}{1}$ TYPE Stictopora interstriata Hall. Transactions of the Albany institute. 1881. 10:191.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 7–10.

Hamilton beds — Fall brook, Gorham, Ontario co. N.Y.

986 $\frac{8850}{2}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 11.

Hamilton beds — Near Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

987 $\frac{8850}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 12.

Hamilton beds — Near Alden N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

Original type of pl. 62, fig. 11.

Stictopora investis Hall

988 [illegible] TYPE Stictopora investis Hall. Transactions of the Albany institute. 1881. 10:15 (abstract).

Hall. Preliminary report of the New York state geologist. 1882. p. 33, pl. 2, fig. 2–3.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 58, fig. 22.

[illegible] — Clarksville N. Y.

Stictopora limata Hall & Simpson

989 6882/1 TYPE Stictopora limata Hall & Simpson. Paleontology of New York. 1887. 6: 250, pl. 61, fig. 14, 15.
Hamilton beds Darien Center N. Y.

990 6882/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 16.
Hamilton beds Darien N. Y.
C. Van Deloo, coll. 1865

Stictopora linearis Hall

991 6883/1 TYPE Stictopora linearis Hall. Transactions of the Albany institute. 1881. 10: 15 (abstract).
Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 4.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 4.
Onondaga limestone Leroy N. Y.

992 6883/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 5.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 5.
Onondaga limestone Leroy N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877
On slab with type of Acanthoclema alternatum, Pal. N. Y. v. 6, pl. 25, fig. 8–10.

Stictopora ovata Hall & Simpson

993 6884/1 TYPE Stictopora ovata Hall & Simpson. Paleontology of New York. 1887. 6: 248, pl. 63, fig. 24.
Hamilton beds Canandaigua lake, N. Y.

Stictopora palmipes Hall

994 6886/1 TYPE Stictopora palmipes Hall. Transactions of the Albany institute. 1881. 10: 189.
Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 19, 20.
Hamilton beds Pavilion, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Stictopora papillosa Hall

995 6886/1 TYPE Stictopora papillosa Hall. 32d annual report of the New York state museum of natural history. 1879. p. 161.
Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 12.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 12; pl. 23A, fig. 16.

Helderbergian — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

996 $\frac{8838}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 13, fig. 13.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 13, fig. 13.

Helderbergian — Near Clarksville N. Y.

Stictopora perarcta Hall

997 $\frac{8837}{1}$ TYPE Stictopora perarcta Hall. Transactions o the Albany institute. 1881. 10: 15 (abstract).

Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 29, fig. 36, 37.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 29, fig. 36, 37.

Onondaga limestone — Onondaga Valley, N. Y.

Stictopora permarginata Hall

998 $\frac{8838}{1}$ TYPE Stictopora permarginata Hall. Transactions of the Albany institute. 1881. 10: 191.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 16.

Hamilton beds — Hamburg-on-the-Lake N. Y.

C. Van Deloo, coll. 1864

Stictopora rectalinea Hall & Simpson

999 $\frac{8839}{1}$ TYPE Stictopora rectalinea Hall & Simpson. Paleontology of New York. 1887. 6: 245, pl. 63, fig. 23.

Hamilton beds — West Williams Ont.

J. De Cew, coll. 1865

Stictopora recubans Hall & Simpson

1000 $\frac{8840}{1}$ TYPE: PLASTOTYPE Stictopora recubans Hall & Simpson. Paleontology of New York. 1887. 6: 260, pl. 63, fig. 20, 21.

Hamilton beds — Shore of Seneca lake, N. Y.

Stictopora rhomboidea Hall

1001 Stictopora rhomboidea Hall. Transactions institute. 1881. 10: 15.

al report of the New York state geolo- fig. 27, 28.

Hall & Simpson. Paleontology of New York. 1883. v. 6, pl. 29, fig. 27, 28.

Onondaga limstone West of Leroy N. Y.

On slab with type of Fenestella nexilis, 7th an. rep't N. Y. state geol., pl. 10, fig. 14, 15.

Stictopora rigida Hall

8892/1 TYPE Stictopora rigida Hall. Transactions of the Albany institute. 1881. 10:14 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 15, 16.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 15, 16.

Onondaga limestone Leroy N. Y.

C. A. White, coll. 1860

On slab with types of Acanthoclema triseriale, Pal. N. Y. v. 6, pl. 28, fig. 6, 7 and Stictopora semistriata, pl. 29, fig. 19–20.

Stictopora scutulata *see* Ptilodictya scutulata

Stictopora semistriata Hall

8893/1 TYPE Stictopora semistriata Hall. Transactions of the Albany institute. 1881. 10:14 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 17, 20.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 17, 20.

Onondaga limestone Leroy N. Y.

C. A. White, coll. 1860

On slab with type of Stictopora rigida, Pal. N. Y v. 6, pl. 28, fig. 15, 16.

8893/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 25, fig. 18.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 28, fig. 18.

Onondaga limestone Leroy N. Y.

C. A. White, coll. 1860

On slab with type of Stictopora rigida, pl. 28, fig. 15, 16.

Stictopora sinuosa Hall

1005 $\frac{6824}{1}$ TYPE Stictopora sinuosa Hall. Transactions of the Albany institute. 1881. 10:190.

Hall & Simpson. Paleontology of New York 1887. v. 6, pl. 61, fig. 17.

Hamilton beds — Shore of Cayuga lake, south of Union Springs N. Y.

Stictopora striata Hall & Simpson

1006 $\frac{6825}{1}$ TYPE Stictopora striata Hall & Simpson. Paleontology of New York. 1887. 6:246, pl. 63, fig. 22.

Hamilton beds — Vincent, Ontario co. N. Y.

Stictopora subcarinata Hall

1007 $\frac{6826}{1}$ TYPE Stictopora? subcarinata Hall. Transactions of the Albany institute. 1881. 10:191.

Stictopora subcarinata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 1.

Hamilton beds — Bellona, Yates co. N. Y. J. W. Hall and C. Van Deloo, coll. 1866

1008 $\frac{6826}{2}$ HYPOTYPE Stictopora dichotoma Hall (by error). 3d annual report of the New York state geologist. 1884. p. 48.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 2–4.

Hamilton beds — Darien Center N. Y.

1009 $\frac{6826}{3}$ TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 63, fig. 5, 6.

Hamilton beds — Bellona, Yates co. N. Y. J. W. Hall and C. Van Deloo, coll. 1866

Stictopora subrigida Hall

1010 $\frac{6827}{1}$ TYPE Stictopora subrigida Hall. Transactions of the Albany institute. 1881. 10:190.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 60, fig. 21.

Hamilton beds — Near Alden N. Y. C. D. Walcott and C. Van Deloo, coll. 1878

Stictopora trilineata Hall & Simpson

6898/1 TYPE Stictopora trilineata Hall & Simpson. Paleontology of New York. 1887. 6:243, pl. 61, fig. 26, 27.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

Stictopora triserialis *see* Acanthoclema triseriale

Stictopora tumulosa Hall & Simpson

6899/1 TYPE Stictopora tumulosa Hall & Simpson. Paleontology of New York. 1887. 6: 246, pl. 61, fig. 18, 19.

Hamilton beds — Moscow N. Y.

6899/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 20, 21.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

6899/3 TYPE: PLASTOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 61, fig. 22.

Hamilton beds — Moscow N. Y.

C. Van Deloo, coll. 1865

Stomatopora ? alternata *see* Hederella alternata

SYNOCLADIA King

Synocladia (? sp.)

6910/1 HYPOTYPE Undetermined Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 22.

Synocladia ? sp. Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 22.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Rhombopora canaliculata, Pal. N. Y. v. 6, pl. 11, fig. 12.

TAENIOPORA Nicholson

Taeniopora exigua Nicholson

6915/1 HYPOTYPE Taeniopora exigua Nicholson. Paleontology of Ontario. 1874. p. 108.

Hall & Simpson. Paleontology of New York. 1887. 6, pl. 62, fig. 15.

Hamilton beds — Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1017 $^{0}/_{10}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 16.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1018 $^{0}/_{10}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 17.
Hamilton beds Fall brook, Gorham, Ontario co. N. Y.

1019 $^{0}/_{10}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 18.
Hamilton beds Borodino, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

1020 $^{0}/_{10}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 21.
Hamilton beds Near Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1021 $^{0}/_{10}$ HYPOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 22, 24.
Hamilton beds Unadilla Forks, Otsego co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

1022 $^{0}/_{10}$ HYPOTYPE. HYPOPLASTOTYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 62, fig. 23, 25.
Hamilton beds Unadilla Forks N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Thallostigma confertipora *see* Fistulipora confertipora

Thallostigma decipiens *see* Fistulipora decipiens

Thallostigma densa *see* Fistulipora densa

Thallostigma digitata *see* Fistulipora digitata

Thallostigma inclusa *see* Faricella inclusa

Thallostigma lamellata *see* Fistulipora lamellata

Thallostigma longimacula *see* Fistulipora longimacula

Thallostigma micropora *see* Fistulipora micropora

Thallostigma multiculeata *see* Fistulipora multiculeata

Thallostigma plana *see* Fistulipora plana

1031 $\frac{6922}{1}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 47, 48.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 47, 48.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Thamniscus variolatus Hall

1032 $\frac{6924}{1}$ TYPE Thamniscus variolatus Hall. 32d annual report of the New York state museum of natural history. 1879. p. 175.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 34.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 34.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

1033 $\frac{6924}{2}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 35.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 35.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

1034 $\frac{6924}{3}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 36, 45.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 36, 45.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

1035 $\frac{6924}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 37.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 37.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

1036 $\frac{6924}{5}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 40.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 40.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

Thamniscus fruticella Hall

1026 $\frac{0.9.2.1}{}$ TYPE Thamniscus fruticella Hall. 32d annual report of the New York state museum of natural history. 1879. p. 516.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 33

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 33.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Thamniscus multiramus Hall

1027 $\frac{0.9.2.0}{}$ TYPE Thamniscus multiramus Hall. Transactions of the Albany institute. 1881. 10: 19 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 1.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 1.

Onondaga limestone — Schoharie county, N. Y.

J. Gebhard purchase

1028 $\frac{0.9.2.2}{}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 2, 5.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 2, 5.

Onondaga limestone — Clarksville N. Y.

1029 $\frac{0.9.2.2}{}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 3, 4.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 3, 4.

Onondaga limestone — Schoharie N. Y.

Thamniscus ? nysa Hall

1030 $\frac{0.9.2.3}{}$ TYPE Thamniscus nysa Hall. 32d annual report of the New York state museum of natural history. 1879. p. 175.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 31, 32.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 31, 32.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Also with type of Dictyopora constricta, Pal. N. Y. v. 6, pl. 33A, fig. 7.

6923/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 47, 48.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 47, 48.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Thamniscus variolatus Hall

6924/1 TYPE Thamniscus variolatus Hall. 32d annual report of the New York state museum of natural history. 1879. p. 175.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 34.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 34.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6924/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 35.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 35.

New Scotland beds Near Clarksville N. Y.

L. E. Brown and C. Van Deloo, coll. 1876

6924/3 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 36, 45.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 36, 45.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6924/4 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 37.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 37.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

6924/5 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 40.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 40.

New Scotland beds Schoharie N. Y.

J. Gebhard purchase

1037 $\frac{9924}{6}$ TYPE Hall. 2d annual report of the New York sta geologist. 1883. pl. 22, fig. 41.

Hall & Simpson. Paleontology of New York. 188 v. 6, pl. 22, fig. 41.

New Scotland beds Near Clarksville N.

C. D. Walcott and C. Van Deloo, coll. 18

1038 $\frac{9924}{7}$ TYPE Hall. 2d annual report of the New York sta geologist. 1883. pl. 22, fig. 46.

Hall & Simpson. Paleontology of New York. 188 v. 6, pl. 22, fig. 46.

New Scotland beds Near Clarksville N.

C. D. Walcott and C. Van Deloo, coll. 18

Thamnopora divaricata *see* Thamnotrypa divaricata.

THAMNOTRYPA Hall

Thamnotrypa divaricata Hall

1039 $\frac{9930}{1}$ TYPE Thamnopora divaricata Hall. Transactions of the Albany institute. 1881. 10:16 (abstract).

Hall. 2d annual report of the New York state geologist. 1883. pl. 26, fig. 9, 10.

Thamnotrypa divaricata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 33, fig. 9, 10.

Onondaga limestone Near Buffalo N. Y.

TREMATELLA Hall

Trematella glomerata Hall

1040 $\frac{9940}{1}$ TYPE Trematella glomerata Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 4, 5.

Trematopora (Trematella) glomerata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 4, 5.

Onondaga limestone Clarence, Erie co. N. Y.

C. A. White, coll. 1860

Trematop[illegible]. undt.) *see* Acanthoclema diver-

gens

T[illegible]ta *see* Acanthoclema

alt

[illegible]ra) bispinulat

Trematopora (Orthopora) immersa *see* Rhombopora immersa

Trematopora (Callopora) irregularis *see* Coelocaulis irregularis

Trematopora (Orthopora) lineata *see* Rhombopora lineata

Trematopora maculosa *see* Lichenalia maculosa

Trematopora (Orthopora?) orbipora *see* Trematopora orbipora

Trematopora orbipora Hall

6951/1 TYPE Trematopora orbipora Hall. Transactions of the Albany institute. 1881. 10:181.

Trematopora (Orthopora?) orbipora Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 13, pl. 56, fig. 8.

Hamilton beds Fall brook, east of Canandaigua lake, N.Y.

On slab with type of Bactropora curvata, Pal. N. Y. v. 6, pl. 66, fig. 14–16.

6951/2 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 14.

Hamilton beds Canandaigua lake, N. Y.

Trematopora (Orthopora) ornata *see* Rhombopora ornata

Trematopora ostiolata *see* Chilotrypa ostiolata

Trematopora ovatipora *see* Rhombopora ovatipora

Trematopora (Orthopora) ovatipora *see* Rhombopora ovatipora

Trematopora parallela *see* Rhombopora parallela

Trematopora (Orthopora) parallela *see* Rhombopora parallela

Trematopora regularis *see* Rhombopora regularis

Trematopora (Orthopora) regularis *see* Rhombopora regularis

Trematopora (Orthopora) reticulata *see* Rhombopora reticulata

Trematopora rhombifera *see* Rhombopora rhombifera and Stictopora granatula

Trematopora (Orthopora) rhombifera *see* Rhombopora rhombifera

Trematopora scutulata *see* Acanthoclema scutulatum and Rhombopora scutulata

Trematopora (Orthopora) scutulata *see* Rhombopora scutulata

Trematopora subquadrata *see* Rhombopora subquadrata

Trematopora (Orthopora) subquadrata *see* Rhombopora subquadrata

Trematopora (Orthopora) tortalinea *see* Rhombopora tortalinea

Trematopora transversa *see* Rhombopora transversa

Trematopora (Orthopora) transversa *see* Trematopora transversa

Trematopora transversa Hall

1051 TYPE Trematopora transversa Hall. Transactions of the Albany institute. 1881. 10:180.

Trematopora (Orthopora) transversa Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 55, fig. 12.

Hamilton beds — Hamburg-on-the-Lake N. Y.

1052 TYPE Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 56, fig. 13, 14.

Hamilton shales — Hamburg-on-the-Lake N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

TROPIDOPORA Hall

Tropidopora nana Hall

1053 TYPE Tropidopora nana Hall. 5th annual report of the New York state geologist, advance sheets. 1886. pl. 25, fig. 25, 26.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 25, fig. 25, 26.

Onondaga limestone — Onondaga Valley N. Y.
C. A. White, coll. 1860

UNITRYPA Hall

Unitrypa lata Hall

6970/1 TYPE Fenestella (Hemitrypa) lata Hall. Transactions of the Albany institute. 1881. 10: 34 (abstract).

Fenestella (Unitrypa) lata Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 52, fig. 5.

Onondaga limestone — Near Buffalo N. Y.

C. A. White, coll. 1861

Unitrypa nervia Hall

6971/1 TYPE Fenestella nervia Hall. 26th annual report of the New York state museum of natural history. 1874. p. 93.

Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 1–3.

Fenestella (Unitrypa) nervia Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 1–3.

New Scotland beds — Near Clarksville N. Y.

6971/2 TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 22, fig. 6.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 6.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

On slab with type of Polypora paxillata, Pal. N. Y. v. 6, pl. 18, fig. 10, 11.

6971/3 HYPOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl 22, fig. 9, 10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 22, fig. 9, 10.

New Scotland beds — Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1877

Unitrypa nervia *var.* constricta Hall

6972/1 TYPE Fenestella (Hemitrypa) nervia var. constricta Hall. 32d annual report of the New York state museum of natural history. 1879. p. 174.

Hall. 2d annual report of the New York state geologist. 1883. pl 22, fig. 11.

Fenestella (Unitrypa) nervia var. c
stricta Hall & Simpson. Paleontology of New Yo
1887. v. 6, pl. 22, fig. 11.

New Scotland beds Near Clarksville N.

1059 [illegible] TYPE Hall. 2d annual report of the New York sta
geologist. 1883. pl. 22, fig. 12.

Hall & Simpson. Paleontology of New York. 188
v. 6, pl. 22, fig. 12.

New Scotland beds. Near Clarksville N. Y

C. D. Walcott and C. Van Deloo, coll. 187

On slab with type of Polypora paxillata, Pal. N Y
v. 6, pl. 18, fig. 10, 11.

Unitrypa praecursor Hall

1060 [illegible] TYPE Fenestella praecursor Hall. 26th annual
report of the New York state museum of natural history.
1874. p. 94.

Hall. 2d annual report of the New York state geolo-
gist. 1883. p. 21, fig. 15, 18.

Fenestella (Unitrypa) praecursor Hall &
Simpson. Paleontology of New York. 1887. v. 6,
p. 21, fig. 15, 18.

New Scotland beds Near Clarksville N. Y.

C. D. Walcott and C. Van Deloo, coll. 1876

On slab with type of Polypora obliqua, Pal. N. Y. v. 6,
p. 18, fig. 8, 8.

1061 [illegible] TYPE Hall. 2d annual report of the New York state
geologist. 1883. pl. 21, fig. 13.

Hall & Simpson. Paleontology of New York. 1887
v. 6, pl. 21, fig. 13.

New Scotland beds Near Clarksville N. Y

C. D. Walcott and C. Van Deloo, coll. 187

Unitrypa scalaris Hall

1062 [illegible] TYPE Fenestella scalaris Hall. 26th annual r
New York state museum of natural histor
1874. p. 94.

Fenestella (Unitrypa) scalaris Hall. 2
annual report of the New York state geologist. 18
pl. 21, fig. 14.

New Scotland beds Schoharie N.

6974/2 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 2–4.
Hamilton beds Bellona N. Y.

6974/3 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 6, 9.
Hamilton beds Thedford Ont.
J. De Cew, coll. 1865

6974/4 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 7, 8.
Hamilton beds Bellona N. Y.

6974/5 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 10.
Hamilton beds Bellona N. Y.

6974/6 TYPE Hall. 7th annual report of the New York state geologist. 1888. pl. 11, fig. 11.
Hamilton beds Bellona N. Y.
On slab with type of pl. 11, fig. 10.

BRACHIOPODA

ACROTHELE Linnarsson

Acrothele matthewi Hartt, *var.* lata Matthew

7000/1 PLASTOTYPE Acrothele matthewi var. lata Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 17.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 27.
St John group Hanford Brook, N. B.

ACROTRETA Kutorga

Acrotreta baileyi Matthew

7020/1 PLASTOTYPE Acrotreta baileyi Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 13c.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 32.
St John group Long Reach, Kings co. N. B.

7020/2 PLASTOTYPE Matthew. Transactions of the Royal society of Canada. 1886. v. 3, pl. 5, fig. 13.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 33.
St John group Long Reach N. B.

1071 $\frac{7020}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 34.
St John group Long Reach N. B

Acrotreta ? gulielmi *see* Discinopsis gulielmi

Ambocoelia gregaria *see* Ambocoelia umbonata *var.* gregaria

AMBOCOELIA Hall

Ambocoelia praeumbona Hall

1072 $\frac{7040}{1}$ TYPE Orthis praeumbona Hall. 10th annual report of the New York state cabinet of natural history 1857. p. 167.
Ambocoelia praeumbona Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 1.
Hamilton shales Canandaigua lake, N. Y
R. P. Whitfield and C. Van Deloo, coll. 186

1073 $\frac{7040}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4 pl. 44, fig. 2.
Hamilton shales Canandaigua lake, N. Y
C. A. White and C. Van Deloo, coll. 186

1074 $\frac{7040}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4 pl. 44, fig. 6.
Hamilton shales Canandaigua lake, N. Y
C. A. White and C. Van Deloo, coll. 186

Ambocoelia spinosa Clarke

1075 $\frac{7041}{1}$ TYPE Ambocoelia spinosa Clarke. 13th annual report of the New York state geologist. 1894. 1: 17 pl. 4, fig. 6-8.
Hamilton shales Livonia shaft, Livingston co. N. Y

Ambocoelia umbonata *var.* gregaria Hall

1076 $\frac{7042}{1}$ TYPE Ambocoelia gregaria Hall. 13th annual report of the New York state cabinet of natural history 1860. p. 81.
Ambocoelia umbonata var. gregaria Hall Paleontology of New York. 1867. v. 4, pl. 44, fig. 23
Chemung beds Randolph, Cattaraugus co. N. Y
C. Van Deloo, coll. 186

AMPHIGENIA Hall

Amphigenia elongata Vanuxem (sp.)

1077 $\frac{1060}{1}$ HYPOTYPE Pentamerus elongatus Vanuxem. Geology of New York; report on the 3d district. 1842. p. 132.

Amphigenia elongata Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 21.

Onondaga limestone Clarence, Erie co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860

1078 $\frac{1060}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 22.

Onondaga limestone Leroy N. Y.

1079 $\frac{1060}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 23.

Onondaga limestone Clarence N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860

1080 $\frac{1060}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 24.

Onondaga limestone Williamsville, Erie co. N. Y.

1081 $\frac{1060}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 59, fig. 7.

Onondaga limestone Leroy N. Y.

1082 $\frac{1060}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 73, fig. 16.

Schoharie grit Schoharie N. Y.

1083 $\frac{1060}{7}$ HYPOTYPE Amphigenia elongata var. undulata Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 26.

Amphigenia elongata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 73, fig. 20.

Onondaga limestone
From the drift of southern Michigan
C. Rominger, donor

1084 $\frac{1060}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 59, fig. 8.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 74, fig. 1.

Onondaga limestone Clarence N. Y.

1071 $\frac{7020}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of York. 1892. v. 8, pt 1, pl. 3, fig. 34.
St John group Long Reach l

Acrotreta ? gulielmi *see* Discinopsis guli

Ambocoelia gregaria *see* Ambocoelia umbo *var.* gregaria

AMBOCOELIA Hall

Ambocoelia praeumbona Hall

1072 $\frac{7040}{1}$ TYPE Orthis praeumbona Hall. 10th annual port of the New York state cabinet of natural hist 1857. p. 167.
Ambocoelia praeumbona Hall. Paleon ogy of New York. 1867. v. 4, pl. 44, fig. 1.
Hamilton shales Canandaigua lake, N.
R. P. Whitfield and C. Van Deloo, coll. 1

1073 $\frac{7040}{2}$ TYPE Hall. Paleontology of New York. 1867. v. pl. 44, fig. 2.
Hamilton shales Canandaigua lake, N.
C. A. White and C. Van Deloo, coll. 1

1074 $\frac{7040}{3}$ TYPE Hall. Paleontology of New York. 1867. v. pl. 44, fig. 6.
Hamilton shales Canandaigua lake, N.
C. A. White and C. Van Deloo, coll. 1

Ambocoelia spinosa Clarke

1075 $\frac{7041}{1}$ TYPE Ambocoelia spinosa Clarke. 13th ann report of the New York state geologist. 1894. 1: pl. 4, fig. 6–8.
Hamilton shales Livonia shaft, Livingston co. N.

Ambocoelia umbonata *var.* gregaria Hall

1076 $\frac{7042}{1}$ TYPE Ambocoelia gregaria Hall. 13th ann report of the New York state cabinet of natural hist 1860. p. 81.
Ambocoelia umbonata var. gregaria H Paleontology of New York. 1867. v. 4, pl. 44, fig.
Chemung beds Randolph, Cattaraugus co. N
C. Van Deloo, coll. 1

AMPHIGENIA Hall

Amphigenia elongata Vanuxem (sp.)

7060/1 HYPOTYPE Pentamerus elongatus Vanuxem. Geology of New York; report on the 3d district. 1842. p. 132.

Amphigenia elongata Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 21.

Onondaga limestone Clarence, Erie co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1860

7060/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 22.

Onondaga limestone Leroy N. Y.

7060/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 23.

Onondaga limestone Clarence N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1860

7060/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 24.

Onondaga limestone Williamsville, Erie co. N. Y.

7060/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 59, fig. 7.

Onondaga limestone Leroy N. Y.

7060/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 73, fig. 16.

Schoharie grit Schoharie N. Y.

7060/7 HYPOTYPE Amphigenia elongata var. undulata Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 26.

Amphigenia elongata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 73, fig. 20.

Onondaga limestone

From the drift of southern Michigan

C. Rominger, donor

7060/8 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 59, fig. 8.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 74, fig. 1.

Onondaga limestone Clarence N. Y.

Athyris lamellosa Léveillé (sp.)

1097 $\frac{7102}{1}$ HYPOTYPE: HYPOPLASTOTYPE Spirifer lamellosus Léveillé. Mémoires de la Société geologique de France. 1835. 2:39.

Athyris lamellosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 46, fig. 19.

Keokuk group — Crawfordsville Ind.

C. Van Deloo, coll. 1867

Athyris polita Hall

1098 $\frac{7103}{1}$ TYPE Atrypa polita Hall. Geology of New York; report on the 4th district. 1843. Explanation of tab. 66.

Athyris? polita Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 31.

Chemung beds — Randolph N. Y.

C. Van Deloo, coll. 1863

1099 $\frac{7103}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 32.

Chemung beds — New Albion, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

1100 $\frac{7103}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 33.

Chemung beds — Western New York

Athyris prinstana *see* Hindella prinstana

Athyris spiriferoides Eaton (sp.)

1101 $\frac{7104}{1}$ HYPOTYPE Terebratula spiriferoides Eaton. American journal of science. 1831. 21:137.

Athyris spiriferoides Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 5.

Hamilton shales — York, Livingston co. N. Y.

C. A. White, coll. 1860

1102 $\frac{7104}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 6, 7.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

1103 $\frac{7104}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 11.

Hamilton shales — Eighteen Mile creek, N. Y.

C. A. White, coll. 1860

7104/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 13.
Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860.

7104/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 25.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 45, fig. 11.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864

7104/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 45, fig. 13.
Hamilton shales Thunder bay, Mich.

7104/7 HYPOTYPE Hall. 13th annual report of the New York state cabinet of natural history. 1859. p. 93, fig. 3.
Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 180, fig. 3.
Hall. Paleontology of New York. 1867. v. 4, pl. 46, fig. 27.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 45, fig. 12.
Hamilton shales Darien Center N. Y.
C. A. White, coll. 1860

7104/8 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 89, fig. 60.
Hamilton shales Canandaigua N. Y.

Athyris subquadrata *see* Seminula subquadrata

Athyris umbonata *see* Hindella umbonata

Athyris vittata Hall

7105/1 HYPOTYPE Athyris vittata Hall. 13th annual report of the New York state cabinet of natural history. 1859. p. 89.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 45, fig. 4.
Onondaga limestone Falls of the Ohio, Ky.

7105/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 45, fig. 5.
Onondaga limestone Falls of the Ohio, Ky.

7105/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 89, fig. 62, 63.
Onondaga limestone Falls of the Ohio, Ky.

ATRYPA Dalman

Atrypa acutiplicata *see* Coelospira acutiplicata

Atrypa arata *see* Pentamerella arata

Atrypa camura *see* Trematospira camura

Atrypa concinna *see* Nucleospira concinna

Atrypa congesta *see* Hyattella congesta

Atrypa congregata *see* Camarotoechia congregata

Atrypa contracta *see* Camarotoechia contracta

Atrypa cuneata var. americana *see* Rhynchotreta cuneata *var.* americana

Atrypa disparilis *see* Atrypina disparilis

Atrypa extans *see* Triplecia extans

Atrypa flabellites *see* Leptocoelia flabellites

Atrypa galeata *see* Sieberella galeata

Atrypa globuliformis *see* Liorhynchus globuliforme

Atrypa hemiplicata *see* Parastrophia hemiplicata

Atrypa hemispherica *see* Coelospira hemispherica

Atrypa hirsuta *see* Parazyga hirsuta

Atrypa hystrix Hall

1112 $\frac{7110}{1}$ HYPOPLASTOTYPE Atrypa hystrix Hall. Geology of New York; report on the 4th district. 1843. p. 272.

Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 16.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 23.

Chemung beds — Near Bath, Steuben co. N. Y.

Atrypa impressa Hall

1113 $\frac{7111}{1}$ HYPOTYPE Atrypa impressa Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 122.

Hall. Paleontology of New York. 1867. v. 4, p. 51, fig. 7.

Schoharie grit — Schoharie N. Y.

1114 $\frac{7111}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 9.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

Atrypa intermedia *see* Whitfieldella intermedia

Atrypa lamellata *see* Rhynchonella (?) lamellata

Atrypa marginalis Dalman

7112/1 HYPOTYPE Terebratula marginalis Dalman. Kongl. Svenska Vet. Akad. Handl. för 1827. 1828, p. 59.

Atrypa marginalis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 24, 25.

Middle Siluric — Anticosti

Atrypa medialis *see* Eatonia medialis

Atrypa modesta *see* Zygospira modesta

Atrypa nasuta *see* Meristella nasuta

Atrypa naviformis *see* Whitfieldella (?) naviformis

Atrypa neglecta *see* Camarotoechia (?) neglecta

Atrypa nitida *see* Whitfieldella nitida

Atrypa nucleolata *see* Whitfieldella (?) nucleolata

Atrypa planoconvexa *see* Coelospira planoconvexa

Atrypa plicatula *see* Coelospira plicatula

Atrypa quadricostata *see* Liorhynchus quadricostatum

Atrypa reticularis Linné (sp.)

7113/1 HYPOTYPE Anomia reticularis Linné. Systema naturae. 1867. ed. 12, pt 1, p. 1132.

Atrypa reticularis Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 11.

Onondaga limestone — Cayuga Ont.

7113/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 51, fig. 12, 13.

Onondaga limestone — Cayuga Ont.

7113/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53, fig. 3, 4.

Hamilton shales — York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

7113/4 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 12, 12a, 15, 15a.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 1.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1120 $\frac{7}{6}\frac{1}{12}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53, fig. 11.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 7.
Hamilton shales Darien, Genesee co. N. Y.
C. A. White, coll. 1860

1121 $\frac{7}{6}\frac{1}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 13.
Onondaga limestone Falls of the Ohio, Ky.

1122 $\frac{7}{7}\frac{1}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 14.
Onondaga limestone Falls of the Ohio, Ky.

1123 $\frac{7}{8}\frac{1}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 17.
Hamilton beds Clarke county, Ind.

1124 $\frac{7}{9}\frac{1}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 165, fig. 153.
Onondaga limestone Falls of the Ohio, Ky.

1125 $\frac{7}{10}\frac{1}{12}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 16, 16a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1126 $\frac{7}{11}\frac{1}{12}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 17, 17a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1127 $\frac{7}{12}\frac{1}{12}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 18, 18a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1128 $\frac{7}{13}\frac{1}{12}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 19, 19a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1129 $\frac{7}{14}\frac{1}{12}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 20, 20a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Atrypa robusta *see* Rhynchonella robusta

Atrypa rostrata *see* Meristella rostrata

Atrypa scitula *see* Charionella scitula

Atrypa semiplicata *see* Rhynchonella semiplicata

Atrypa spinosa Hall

0 $\frac{7114}{1}$ HYPOTYPE Atrypa spinosa Hall. Geology of New York; report on the 4th district. 1843. p. 200.

Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 1.

Onondaga limestone — Caledonia N. Y.
C. A. White, coll. 1860

1 $\frac{7114}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 8.

Hamilton shales — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2 $\frac{7114}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 53A, fig. 13.

Hamilton beds — Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

3 $\frac{7114}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 55, fig. 22.

Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke purchase

Atrypa sulcata *see* Whitfieldella sulcata

Atrypa unguiformis *see* Hipparionyx proximus

Atrypa unisulcata *see* Pentagonia unisulcata

ATRYPINA Hall & Clarke

Atrypina clintoni Hall & Clarke

4 $\frac{7120}{1}$ TYPE Atrypina clintoni Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 161, pl. 53, fig. 7.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 29.

Clinton beds — Drift of western New York

5 $\frac{7120}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 17.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 28.

Clinton beds — Drift of western New York

1136 $\frac{1}{3}\frac{120}{}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 19.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 30.

Clinton beds — Drift of western New York

Atrypina disparilis Hall

1137 $\frac{1}{1}\frac{121}{}$ HYPOTYPE Atrypa disparilis Hall. Paleontology of New York. 1852. 2:277.

Coelospira disparilis Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 17, 17a.

Atrypina disparilis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 4.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1138 $\frac{1}{2}\frac{121}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 18.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1139 $\frac{1}{3}\frac{121}{}$ HYPOTYPE Beecher and Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 20.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1140 $\frac{1}{4}\frac{121}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 21.

Niagaran — Waldron Ind

C. D. Walcott and C. Van Deloo, coll. 1878

1141 $\frac{1}{5}\frac{121}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 22.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1142 $\frac{1}{6}\frac{121}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 23.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Atrypina imbricata Hall

1143 $\frac{1}{1}\frac{122}{}$ HYPOTYPE Leptocoelia imbricata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 108.

[illegible]cata Hall & Clarke. Paleon-

v. 8, pt 2, pl. 53, fig. 5.

Clarksville N.

7122/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 6.
Helderbergian Clarksville N. Y.

7122/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 8.
Helderbergian Clarksville N. Y.

BARRANDELLA Hall & Clarke

Barrandella areyi Hall & Clarke

7130/1 TYPE Barrandella areyi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 14–16.
Barrandella areyi Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 13, fig. 1–3.
Clinton beds Rochester N. Y.

Barrandella fornicata Hall

7131/1 TYPE Pentamerus fornicatus Hall. Paleontology of New York. 1852. 2:81, pl. 24, fig. 7a–7d.
Barrandella fornicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 11–13.
Clinton beds Lockport N. Y.
Jewett collection

Barrandella fornicata *var.* Hall

7132/1 TYPE Pentamerus fornicatus var. Hall. 11th annual report of the Indiana state geologist. 1882. p. 299, pl. 27, fig. 15.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

BARROISELLA Hall & Clarke

Barroisella subspatulata Meek & Worthen (sp.)

7140/1 HYPOPLASTOTYPE Lingula subspatulata Meek & Worthen. Geological survey of Illinois. 1868. 3:437.
Barroisella subspatulata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 14, 15.
Black slate (Genesee) White river, near Rockford Ind.

7140/2 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 16.
Black slate (Genesee) White river, near Rockford Ind.

BILLINGSELLA Hall & Clarke

Billingsella (?) laurentina Billings (sp.)

1151 $\frac{7150}{1}$ HYPOTYPE Orthis laurentina Billings. Geological survey of Canada; report for 1856–1857, p. 297.

Billingsella (?) laurentina Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 3.

Anticosti group Anticosti

1152 $\frac{7150}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 4.

Anticosti group Anticosti

1153 $\frac{7150}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 5.

Anticosti group Anticosti

Alpheus Hyatt, donor

1154 $\frac{7150}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 6.

Anticosti group Anticosti

Alpheus Hyatt, donor

BRACHYPRION Shaler

Brachyprion majus Clarke

1155 $\frac{7170}{1}$ TYPE: PLASTOTYPE Brachyprion majus Clarke. New York state museum memoir 3. 1900. p. 54, pl. 8, fig. 8.

Oriskanian Becraft mountain, Hudson N. Y.

1156 $\frac{7170}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 9.

Oriskanian Becraft mountain, Hudson N. Y.

1157 $\frac{7170}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 10.

Oriskanian Becraft mountain, Hudson N. Y.

1158 $\frac{7170}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 11.

Oriskanian Becraft mountain, Hudson N. Y.

1159 $\frac{7170}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 12.

Oriskanian Becraft mountain, Hudson N. Y.

1160 $\frac{7170}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 13.

Oriskanian Becraft mountain, Hudson N. Y.

Brachyprion profundum Hall

1161 $\frac{7171}{1}$ HYPOTYPE Leptaena profunda Hall. Paleontology of New York. 1852. 2:61.

Strophodonta profunda Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 18.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Brachyprion schuchertanum Clarke

1162 $\frac{7172}{1}$ TYPE: PLASTOTYPE Brachyprion schuchertanum Clarke. New York state museum memoir 3. 1900. p. 56, pl. 8, fig. 1, 5.

Oriskanian Becraft mountain, Hudson N. Y.

1163 $\frac{7172}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 2.

Oriskanian Becraft mountain, Hudson N. Y.

1164 $\frac{7172}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 3.

Oriskanian Becraft mountain, Hudson N. Y.

1165 $\frac{7172}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 4.

Oriskanian Becraft mountain, Hudson N. Y.

1166 $\frac{7172}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 6.

Oriskanian Becraft mountain, Hudson N. Y.

1167 $\frac{7172}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 7.

Oriskanian Becraft mountain, Hudson N. Y.

CAMARELLA Billings

Camarella calcifera *see* Syntrophia (?) calcifera

Camarella panderi Billings

1168 $\frac{7180}{1}$ HYPOTYPE Camarella panderi Billings. Canadian naturalist and geologist. 1859. 4:302.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 19, 20.

Black river limestone Pauquette's rapids, Ottawa river

W. R. Billings, donor

1169 $\frac{7180}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 21–23.

Black river limestone Pauquette's rapids, Ottawa river

W. R. Billings, donor

Camarella volborthi Billings

1170 $\frac{7181}{1}$ HYPOTYPE Camarella volborthi Billings. Can
dian naturalist and geologist. 1859. 4:301.
Hall & Clarke. Paleontology of New York. 189
v. 8, pt 2, pl. 62, fig. 13, 16.
Black river limestone Pauquette's rapids, Ottawa riv
W. R. Billings, don

1171 $\frac{7181}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New Yor
1894. v. 8, pt 2, pl. 62, fig. 18.
Black river limestone Pauquette's rapids, Ottawa riv

Camarium typum *see* Merista typus

CAMAROPHORIA King

Camarophoria eucharis *see* Camarospi
eucharis.

Camarophoria rhomboidalis Hall & Clarke

1172 $\frac{7190}{1}$ TYPE Camarophoria rhomboidalis Hall
Clarke. Paleontology of New York. 1894. v. 8, pt
p. 212, pl. 62, fig. 25.
Hall & Clarke. 14th annual report of the New Yor
state geologist. 1895. pl. 9, fig. 37.
Onondaga limestone Peru Ind

1173 $\frac{7190}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894
v. 8, pt 2, pl. 62, fig. 26.
Onondaga limestone Peru Ind

CAMAROSPIRA Hall & Clarke

Camarospira eucharis Hall

1174 $\frac{7200}{1}$ TYPE Camarophoria eucharis Hall. Paleon
tology of New York. 1867. 4:368, pl. 57, fig. 40–44.
Camarospira eucharis Hall & Clarke. Paleon
tology of New York. 1894. v. 8, pt 2, pl. 50, fig. 49.
Onondaga limestone Cayuga On
J. De Cew, col

1175 $\frac{7200}{2}$ TYPE Hall. Paleontology of New York. 1867. v.
pl. 57, fig. 45.
Hall & Clarke. Paleontology of New York. 189
v. 8, pt 2, pl. 50, fig. 50.
Onondaga limestone Cayuga Or
J. De Cew, co

CAMAROTOECHIA Hall & Clarke

Camarotoechia ? acinus Hall

176 $\frac{12\,10}{1}$ HYPOTYPE Rhynchonella acinus Hall. Transactions of the Albany institute. 1863. 4:215.

Beecher & Clarke New York state museum memoir 1. 1889. pl. 4, fig. 9, 9a, 9b.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

177 $\frac{12\,10}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 10, 10a, 10b.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

178 $\frac{12\,10}{3}$ HYPOTYPE Grabau. New York state museum bulletin no. 49. 1901. p. 194, fig. 108.

Clinton limestone — Niagara gorge, N. Y.

A. W. Grabau, coll. 1900

Camarotoechia congregata Conrad (sp.)

179 $\frac{12\,11}{1}$ HYPOTYPE Atrypa congregata Conrad. 5th annual report of the New York state geological survey. 1841. p. 55.

Rhynchonella (Stenocisma) congregata Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 55.

Camarotoechia congregata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 23.

Hamilton beds — Otsego county, N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

180 $\frac{12\,11}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 57.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 25.

Hamilton beds — Madison county, N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Camarotoechia contracta Hall

181 $\frac{12\,12}{1}$ HYPOTYPE Atrypa contracta Hall. Geology of New York; report on the 4th district. 1843. Expl. of tab. 66.

BILLINGSELLA Hall & Clarke

Billingsella (?) laurentina Billings (sp.)

1151 $\frac{7150}{1}$ HYPOTYPE Orthis laurentina Billings. Geological survey of Canada; report for 1856–1857, p. 297.

Billingsella (?) laurentina Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 3.

Anticosti group — Anticosti

1152 $\frac{7150}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 4.

Anticosti group — Anticosti

1153 $\frac{7150}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 5.

Anticosti group — Anticosti

Alpheus Hyatt, donor

1154 $\frac{7150}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 6.

Anticosti group — Anticosti

Alpheus Hyatt, donor

BRACHYPRION Shaler

Brachyprion majus Clarke

1155 $\frac{7170}{1}$ TYPE: PLASTOTYPE Brachyprion majus Clarke. New York state museum memoir 3. 1900. p. 54, pl. 8, fig. 8.

Oriskanian — Becraft mountain, Hudson N. Y.

1156 $\frac{7170}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 9.

Oriskanian — Becraft mountain, Hudson N. Y.

1157 $\frac{7170}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 10.

Oriskanian — Becraft mountain, Hudson N. Y.

1158 $\frac{7170}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 11.

Oriskanian — Becraft mountain, Hudson N. Y.

1159 $\frac{7170}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 12.

Oriskanian — Becraft mountain, Hudson N. Y.

1160 [illegible] TYPE Clarke. New York state museum pl. 8, fig. 13.

Becraft mountain, Hudson N. Y.

Camarotoechia (?) indianensis Hall

1188 $\frac{7215}{1}$ HYPOTYPE Rhynchonella indianensis Hall. Transactions of the Albany institute. 1863. 4:215.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 6.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 19.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1189 $\frac{7215}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 5.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 20.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1190 $\frac{7215}{3}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 4.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 21.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1191 $\frac{7215}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 26, 26a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1192 $\frac{7215}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 27, 27a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1193 $\frac{7215}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 28, 28a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Camarotoechia (?) neglecta Hall

1194 $\frac{7216}{1}$ HYPOTYPE Atrypa neglecta Hall. Paleontology of New York. 1852. 2:70.

Rhynchonella neglecta Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 3.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 3.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Rhynchonella (Stenocisma) contracta Hall. Paleontology of New York. 1867. 4:351, pl. 55, fig. 27.

Upper Chemung beds — Bradford, McKean co. Pa. R. P. Stevens, donor

On slab with type of Leptodesma matheri Hall. Pal. N. Y. v. 5, pt 1, pl. 89, fig. 25.

1182 $\frac{12}{2}\frac{12}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 34, 35.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 30, 32.

Chemung beds — Horse Corners, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1183 $\frac{12}{3}\frac{12}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 38.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 49.

Hamilton beds — Near Cardiff, Onondaga co. N. Y. G. B. Simpson, coll. 1863

Camarotoechia (sp.) *cf.* **dryope** Billings

1184 $\frac{12}{1}\frac{13}{1}$ HYPOTYPE Camarotoechia (sp.) cf. dryope Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 20, 21.

Oriskanian — Becraft mountain, Hudson N. Y.

Camarotoechia (?) duplicata Hall

1185 $\frac{12}{1}\frac{14}{1}$ TYPE Rhynchonella (Stenocisma) duplicata Hall. Paleontology of New York. 1867. 4:350, pl. 55, fig. 21.

Chemung beds — Conewango, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1186 $\frac{12}{2}\frac{14}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 22, 24.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 39.

Chemung beds — New Albion, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1187 $\frac{12}{3}\frac{14}{3}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. pl. 55, fig. 23, 25.

New Albion N. Y. C. Van Deloo, coll. 1863

Camarotoechia (?) indianensis Hall

7215/1 HYPOTYPE Rhynchonella indianensis Hall. Transactions of the Albany institute. 1863. 4:215.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 6.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 19.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7215/2 HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 5.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 20.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7215/3 HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 4.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 21.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7215/4 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 26, 26a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7215/5 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 27, 27a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7215/6 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 28, 28a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Camarotoechia (?) neglecta Hall

7216/1 HYPOTYPE Atrypa neglecta Hall. Paleontology of New York. 1852. 2:70.

Rhynchonella neglecta Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 3.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 3.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1195 $\frac{12}{2}\frac{16}{16}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 6, 6a.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1196 $\frac{12}{3}\frac{16}{16}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 7, 7a.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Camarotoechia oblata Hall

1197 $\frac{12}{1}\frac{17}{17}$ HYPOTYPE Rhynchonella oblata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 86.

Camarotoechia oblata Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 22.

Oriskanian — Becraft mountain, Hudson N. Y.

Camarotoechia orbicularis Hall

1198 $\frac{12}{1}\frac{18}{18}$ TYPE Rhynchonella orbicularis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 88.

Rhynchonella (Stenocisma) orbicularis Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 40.

Camarotoechia orbicularis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 46.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

1199 $\frac{12}{2}\frac{18}{18}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 41.

Chemung beds — Olean, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

1200 $\frac{12}{3}\frac{18}{18}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 46.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 50.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

Camarotoechia stevensi Hall

7219/1 TYPE Rhynchonella (Stenocisma) stephani Hall. Paleontology of New York. 1867. 4:349, pl. 55, fig. 11, 12.

Chemung beds — Bedford Pa.
R. P. Stevens, coll.

7219/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 55, fig. 13–15.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 34, 35.

Chemung beds — Bedford Pa.
R. P. Stevens, coll.

Camarotoechia tethys Billings (sp.)

7220/1 HYPOTYPE Rhynchonella ? tethys Billings. Canadian journal. 1860. 5:270.

Rhynchonella (Stenocisma) tethys Hall. Paleontology of New York. 1867. v. 4, pl. 54, fig. 4–8.

Camarotoechia tethys Hall and Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 57, fig. 1, 2.

Onondaga limestone — Erie co. N. Y.
C. Van Deloo, coll. 1864

Camarotoechia whitii Hall

7221/1 HYPOTYPE Rhynchonella whitii Hall. Transactions of the Albany institute. 1863. 4:216.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 1, 1a.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7221/2 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 4, 4a.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7221/3 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 5, 5a.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

CENTRONELLA Billings

Centronella glans-fagea Hall

1207 12320 HYPOTYPE Rhynchonella glans-fagea Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 125.

Centronella glans-fagea Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 3–5.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 2–4.

Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

1208 12320 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 17.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 7.

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

1209 12320 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 18.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 13.

Schoharie grit — Clarksville N. Y.
C. Van Deloo, coll. 1862

1210 12320 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 21.

Onondaga limestone — Cayuga Ont.

Centronella hecate Billings

1211 12321 HYPOTYPE Centronella hecate Billings. Canadian journal. 1861. 6:272.

Centronella hecate Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 27–29.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 79, fig. 15.

Onondaga limestone — Cayuga Ont.
J. De Cew, coll. 1866

Centronella impressa Hall

1212 12322 HYPOTYPE Centronella impressa Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 122

Hall. Paleontology of New York. 1867. v. 4, pl. 61A, fig. 30–32.

Hamilton beds Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

Centronella julia *see* Romingerina julia

Centronella ovata Hall

1213 $\frac{12338}{1}$ TYPE Centronella ovata Hall. Paleontology of New York. 1867. 4:419, pl. 61A, fig. 47–49.

Onondaga limestone Cayuga Ont.
J. De Cew, coll. 1866

CHARIONELLA Billings

Charionella scitula Hall

1214 $\frac{12340}{1}$ HYPOTYPE Atrypa scitula Hall. Geology of New York; report on the 4th district. 1843. p. 171.

Charionella scitula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 19.

Onondaga limestone Cayuga Ont.

1215 $\frac{12340}{2}$ HYPOTYPE Meristella scitula Hall. Paleontology of New York. 1867. v. 4, pl. 47, fig. 34, 35.

Onondaga limestone Clarence, Erie co. N. Y.

CHONETES Fischer de Waldheim

Chonetes carinatus Conrad (sp.)

1216 $\frac{12350}{1}$ HYPOTYPE Strophomena carinata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:257.

Chonetes coronata Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 10e, 10f.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 11.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 11.

Hamilton beds Genesee county, N. Y.
C. Van Deloo, coll. 1864

1217 $\frac{12350}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 10g.

Hall 2d annual report of the New York state geologist. 1883. pl. 47, fig. 10.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 10.

Hamilton beds Alexander, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1218 $\frac{7250}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 10l.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 24.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 24.

Hamilton beds York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Chonetes complanata *see* Chonostrophia complanata

Chonetes coronata *see* Chonetes carinatus

Chonetes hudsonicus Clarke

1219 $\frac{7251}{1}$ TYPE Chonetes hudsonica Clarke. New York state museum memoir 3. 1900. p. 49, pl. 7, fig. 1.

Oriskanian Becraft mountain, Hudson N. Y.

1220 $\frac{7251}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 2.

Oriskanian Becraft mountain, Hudson N. Y.

1221 $\frac{7251}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 3.

Oriskanian Becraft mountain, Hudson N. Y.

1222 $\frac{7251}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 4.

Oriskanian Becraft mountain, Hudson N. Y.

1223 $\frac{7251}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 5, 6.

Oriskanian Becraft mountain, Hudson N. Y.

Chonetes illinoisensis Worthen

1224 $\frac{7252}{1}$ HYPOTYPE Chonetes illinoisensis Worthen. Transactions of the St Louis academy of sciences. 1860. 1:571.

Chonetes illinoisensis Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 15.

Waverly group Weymouth, Medina co. O.
C. A. White, coll. 1861

Chonetes lepidus Hall

7253/1 TYPE Chonetes lepida Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 148.

Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 12.

Genesee slate — Crooked creek, Darien N. Y. C. Van Deloo, coll. 1864

Chonetes logani Norwood & Pratten *var.* **aurora** Hall

7254/1 TYPE Chonetes logani var. aurora Hall. Paleontology of New York. 1867. 4:137, pl. 22, fig. 19.

Waverly group — Bridgeport, Wayne co. O. C. A. White, coll. 1861

7254/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 20.

Waverly group — Bridgeport O. C. A. White, coll. 1861

7254/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 21.

Waverly group — York Center, Medina co. O. C. A. White, coll. 1861

7254/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 22.

Waverly group — Chatham Center, Medina co. O. C. A. White, coll. 1861

Chonetes mucronatus Hall

7255/1 HYPOTYPE Strophomena mucronata Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Chonetes mucronata Hall. Paleontology of New York. 1867. v. 4, pl. 21, fig. 1d, 1e.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 7.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 7.

Marcellus shales — West Avon N. Y. C. A. White and C. Van Deloo, coll.

Chonetes muricata *see* Strophalosia muricata

Chonetes reversa *see* Chonostrophia reversa

Chonetes scitulus Hall

1231 $\frac{1}{1}$ TYPE Chonetes scitula Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 147.

Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 6.

Chemung beds — Conewango, Cattaraugus co. N. Y. C. Van Deloo coll. 1863

1232 $\frac{1}{1}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 7.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 3.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 3.

Chemung beds — Conewango N. Y. C. Van Deloo, coll. 1863

1233 $\frac{1}{1}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 10.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 44.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 44.

Chemung beds — Allegany county, N. Y. C. Van Deloo. coll. 1863

CHONOSTROPHIA Hall & Clarke

Chonostrophia complanata Hall

1234 $\frac{1}{1}$ HYPOTYPE HYPOPLASTOTYPE Chonetes complanata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 56.

Chonostrophia complanata Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 7.

Oriskanian — Becraft mountain, Hudson N. Y.

1235 $\frac{1}{1}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 8.

Oriskanian — Becraft mountain, Hudson N. Y.

1236 $\frac{1}{1}$ HYPOTYPE HYPOPLASTOTYPE New York state museum memoir 3. 1900. pl. 7, fig. 3.

Oriskanian — Becraft mountain, Hudson N. Y.

7270/4 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl 7, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

7270/5 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

7270/6 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

7270/7 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.

Chonostrophia reversa Whitfield (sp.)

7271/1 HYPOTYPE: HYPOPLASTOTYPE Chonetes reversa Whitfield. Annals of the New York academy of science. 1882. 2:213.
Chonostrophia reversa Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 5.
Onondaga limestone Union Springs, Cayuga co. N. Y.
D. F. Lincoln, coll.

CLINTONELLA Hall & Clarke

Clintonella vagabunda Hall & Clarke

7280/1 TYPE Clintonella vagabunda Hall & Clarke. Paleontology of New York. 1894.v. 8, pt 2, p. 159, pl. 52, fig. 1.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 17.
Clinton beds Drift of western New York

7280/2 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 2–4.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 18–20.
Clinton beds Drift of Western New York

7280/3 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 5.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 21.
Clinton beds Drift of western New York

1245 12500/4 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 6.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 22.
Clinton beds Drift of western New York

1246 12500/6 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 7.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 26 [28].
Clinton beds Drift of western New York

1247 12500/5 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 8.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 23.
Clinton beds Drift of western New York

1248 12500/7 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 9.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 24.
Clinton beds Drift of western New York

1249 12500/10 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 10.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 25.
Clinton beds Drift of western New York

1250 12500/9 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 11.
Clinton beds Drift of western New York

COELOSPIRA Hall

Coelospira acutiplicata Conrad (sp.)

1251 12900/1 HYPOTYPE Atrypa acutiplicata Conrad. 5th annual report of the New York geological survey. 1841. p. 54.
Coelospira acutiplicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 36.
Onondaga limestone Waterloo N. Y.

1252 12900/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 37, 38.
Onondaga limestone Waterloo N. Y.

Coelospira camilla Hall

1253 $\frac{7201}{1}$ HYPOTYPE Coelospira concava Hall. Paleontology of New York. 1867. 4:329.
Coelospira camilla Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 29.
Onondaga limestone Leroy N. Y.

1254 $\frac{7201}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 30.
Onondaga limestone Leroy N. Y.

1255 $\frac{7201}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 31.
Onondaga limestone Leroy N. Y.

Coelospira concava Hall

1256 $\frac{7202}{1}$ HYPOTYPE Leptocoelia concava Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 107.
Hall. Paleontology of New York. 1859. v. 3. pl. 38, fig. 1b.
Helderbergian Albany county, N. Y.

1257 $\frac{7202}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 22.
Helderbergian Near Clarksville N. Y.

1258 $\frac{7202}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 23.
Helderbergian Near Clarksville N. Y.

1259 $\frac{7202}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 135. fig. 122.
Helderbergian Near Clarksville N. Y.

1260 $\frac{7202}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 135, fig. 123.
Helderbergian Near Clarksville N. Y.

1261 $\frac{7202}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.

1262 $\frac{7202}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.

1263 $\frac{7202}{8}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

1264 12922 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 26.
Oriskanian Becraft mountain, Hudson N. Y.

Coelospira concava *see* Coelospira camilla

Coelospira dichotoma Hall

1265 12923 HYPOTYPE Leptocoelia dichotoma Hall. Paleontology of New York. 1859. 3:452.
Coelospira dichotoma Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 27, 28.
Oriskanian Becraft mountain, Hudson N. Y.

1266 12923 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 29.
Oriskanian Becraft mountain, Hudson N. Y.

1267 12923 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 30.
Oriskanian Becraft mountain, Hudson N. Y.

1268 12923 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 31, 32.
Oriskanian Becraft mountain, Hudson N. Y.

Coelospira disparilis *see* Atrypina disparilis

Coelospira hemisphaerica Sowerby (sp.)

1269 12924 HYPOTYPE: HYPOPLASTOTYPE Atrypa hemisphaerica Sowerby. Murchison's Silurian system. 1839. pl. 639.
Coelospira hemisphaerica Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 1.
Clinton beds Western New York

1270 12924 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 2.
Clinton beds Western New York

1271 12924 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 3.
Clinton beds Western New York

1272 12924 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 4.
Clinton beds Western New York

Coelospira planoconvexa Hall

12885/1 HYPOTYPE Atrypa planoconvexa Hall. Paleontology of New York. 1852. 2:75.

Coelospira planoconvexa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 52, fig. 15.

Clinton beds — Hamilton Ont.

Coelospira plicatula Hall

12906/1 HYPOTYPE Atrypa plicatula Hall. Geology of New York; report on the 4th district. 1843. p. 72.

Coelospira plicatula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 5.

Clinton beds — Wayne county, N. Y.

CONCHIDIUM Linné

Conchidium multicostatum Hall

12900/1 TYPE Pentamerus multicostatus Hall. Geological survey of Wisconsin; report of progress. 1860. p. 1.

Hall. 20th annual report of the New York state cabinet of natural history. 1867. pl. 13, fig. 22–24.

Conchidium multicostatum Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 64, fig. 6; pl. 66, fig. 10.

Niagaran — Waukesha Wis.

Conchita rhomboidalis *see* Leptaena rhomboidalis

CRANAENA Hall & Clarke

Cranaena romingeri Hall

12910/1 TYPE Terebratula romingeri Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 48.

Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 17–19.

Hamilton beds — Eighteen Mile creek, Erie co. N. Y. C. A. White, coll. 1860

12910/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 21.

Cranaena romingeri Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 13–15.

Hamilton beds — Eighteen Mile creek, Erie co. N. Y. C. A. White, coll. 1860

CRANIA Retzius

Crania *cf.* bella Billings

1278 $\frac{7320}{1}$ TYPE: PLASTOTYPE Crania cf. bella Clarke. New York state museum memoir 3. 1900. p. 58, pl. 8, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.

1279 $\frac{7320}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 20.
Oriskanian Becraft mountain, Hudson N. Y.

Crania crenistriata Hall

1280 $\frac{7321}{1}$ TYPE Crania crenistriata Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 78.
Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 14.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 9.
Hamilton shales Canandaigua lake, N. Y.

1281 $\frac{7321}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 6, 8.
Onondaga limestone Falls of the Ohio, Ky.

1282 $\frac{7321}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4H, fig. 7.
Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase

Crania famelica Hall & Whitfield

1283 $\frac{7322}{1}$ TYPE Crania famelica Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 236, pl. 11, fig. 6.
Hamilton horizon Rockford Ia.

Crania gregaria Hall

1284 $\frac{7323}{1}$ TYPE Crania gregaria Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 31.
Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 24.
Hamilton shales Vincent, Ontario co. N. Y.

Crania pulchella Hall & Clarke

1285 $\frac{7824}{1}$ HYPOTYPE: HYPOPLASTOTYPE Crania pulchella Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 180.

Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 16.

Oriskanian Becraft mountain, Hudson N. Y.

1286 $\frac{7824}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 17.

Oriskanian Becraft mountain, Hudson N. Y.

1287 $\frac{7824}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 18.

Oriskanian Becraft mountain, Hudson N. Y.

Crania radicans *see* Strophalosia radicans

CRANIELLA Oehlert

Craniella hamiltoniae Hall

1288 $\frac{7830}{1}$ HYPOTYPE Crania hamiltoniae Hall. 13th annual report of the New York state cabinet of natural history. 1859. p. 77.

Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 17, 18.

Hamilton shales Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1289 $\frac{7830}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 21.

Hamilton beds Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

1290 $\frac{7830}{3}$ HYPOTYPE Craniella hamiltoniae Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 4.

Onondaga limestone Falls of the Ohio, Ky.

1291 $\frac{7830}{4}$ HYPOTPYE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 9.

Hamilton shales Canandaigua lake, N. Y.

J. M. Clarke purchase

1292 $\frac{7830}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4I, fig. 12.

Hamilton shales Pratts falls, N. Y.

1293 $\frac{7330}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 14.
Hamilton shales — Canandaigua lake, N. Y.
J. M. Clarke purchase

CRYPTONELLA Hall

Cryptonella eudora Hall

1294 $\frac{7340}{1}$ TYPE Cryptonella (Terebratula) eudora Hall. Paleontology of New York. 1867. 4:398, pl. 61, fig. 32.
Chemung beds — Near Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

1295 $\frac{7340}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 36.
Chemung beds — Near Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

1296 $\frac{7340}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 37.
Chemung beds — Near Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

1297 $\frac{7340}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 39.
Chemung beds — Near Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Cryptonella (Terebratula) eudora see Cryptonella eudora

Cryptonella (?) fausta Clarke

1298 $\frac{7341}{1}$ TYPE Cryptonella(?) fausta Clarke. New York state museum memoir 3. 1900. p. 38, pl. 5, fig. 1-3.
Oriskanian — Becraft mountain, Hudson N. Y.

1299 $\frac{7341}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 4-6.
Oriskanian — Becraft mountain, Hudson N. Y.

1300 $\frac{7341}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 7, 8.
Oriskanian — Becraft mountain, Hudson N. Y.

Cryptonella planirostris Hall

1301 $\frac{7342}{1}$ TYPE Terebratula planirostra Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 89.

Cryptonella planirostra Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 9–11.

Hamilton beds — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

7342/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 23, 24.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 8, 9.

Hamilton beds — Hardy county, Va.
G. A. Williams, donor

7342/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 26, 27.

Hamilton beds — Western New York

Cryptonella rectirostris Hall

7343/1 TYPE Terebratula rectirostra Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 88.

Cryptonella rectirostra Hall. Paleontology of New York. 1867. v. 4, pl. 61, fig. 1.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

CYCLORHINA Hall & Clarke

Cyclorhina nobilis Hall

7350/1 TYPE Rhynchospira nobilis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 83.

Trematospira? nobilis Hall. Paleontology of New York. 1867. v. 4, pl. 63, fig. 36.

Cyclorhina nobilis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 11.

Hamilton shales — Darien, Genesee co. N. Y.

CYCLOSPIRA Hall & Clarke

Cyclospira bisulcata Emmons (sp.)

7360/1 HYPOTYPE Orthis bisulcata Emmons. Geology of New York; report on the 2d district. 1842. p. 396.

Cyclospira bisulcata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 148, fig. 135, 136.

Trenton limestone — Ottawa Can.

CYRTIA Dalman

Cyrtia alta Hall

1307 7370/1 TYPE Spirifera alta Hall. Proceedings of the American philosophical society. 1866. 10: 246.
Hall. Paleontology of New York. 1867. v. 4, pl. 43 fig. 1.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1308 7370/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 2.
Cyrtia alta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 1.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1309 7370/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 3.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 5.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1310 7370/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 4, 5, 7.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 26, fig. 2, 4.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1311 7370/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43. fig. 6.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1312 7370/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 43, fig. 8.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl 26, fig. 3.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

1313 7370/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 37.
[illegible]erly beds — Beebe run, Union City Pa.
F. A. Randall, coll.

utirostris *see* Cyrtina acutirostris

licata *see* Cyrtina biplicata

Cyrtia cyrtiniformis Hall & Whitfield

7371/1 TYPE Spirifera cyrtinaeformis Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 238, pl. 11, fig. 21–24.
Cyrtia cyrtiniformis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 26–28.
Hamilton horizon Rockford Ia.
R. P. Whitfield, coll. 1866

7371/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 29.
Hamilton horizon Rockford Ia.
R. P. Whitfield, coll. 1866

7371/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 30.
Hamilton horizon Rockford Ia.
R. P. Whitfield, coll. 1866

7371/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 32.
Hamilton horizon Hackberry Grove near Rockford Ia.
R. P. Whitfield, coll. 1866

Cyrtia triquetra *see* Cyrtina triquetra

CYRTINA Davidson

Cyrtina acutirostris Shumard (sp.)

7380/1 HYPOTYPE Cyrtia acutirostris Shumard. Geological report of Missouri. 1855. p. 204
Cyrtina acutirostris Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 38.
Choteau limestone Pike county, Mo.

7380/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 39–42.
Choteau limestone Pike county, Mo.

7380/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 44.
Choteau limestone Pike county, Mo.

7380/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 54.
Choteau limestone Pike county, Mo.

Cyrtina biplicata Hall

1322 $\frac{12881}{1}$ TYPE Cyrtia biplicata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 165.

Cyrtina biplicata Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 8.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 7.

Onondaga limestone — Drift at Ann Arbor Mich.
C. Rominger, donor

Cyrtina crassa Hall

1323 $\frac{12882}{1}$ HYPOTYPE Cyrtina crassa Hall. Paleontology of New York. 1867. 4:267.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 14.

Onondaga limestone — Drift on Canandaigua lake, N. Y.
J. M. Clarke purchase

Cyrtina hamiltonensis Hall

1324 $\frac{12883}{1}$ TYPE Cyrtia hamiltonensis Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 166.

Cyrtina hamiltonensis Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 1.

Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

1325 $\frac{12883}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 2.

Schoharie grit — Knoxville N. Y.
C. Van Deloo, coll. 1862

1326 $\frac{12883}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 44, fig. 32.

Hamilton beds — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1327 $\frac{12883}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 30.

Hamilton beds — Western New York

1328 $\frac{12883}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 46.

Hamilton beds — Thedford Ont.

1329 $\frac{7383}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 53.
Hamilton beds Thedford Ont.

Cyrtina triquetra Hall

1330 $\frac{7384}{1}$ HYPOTYPE Cyrtia triquetra Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 513.
Cyrtina triquetra Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 34, 35.
Hamilton beds Davenport Ia.

Cyrtina umbonata Hall *var.* **alpenensis** Hall & Clarke

1331 $\frac{7385}{1}$ TYPE Cyrtina umbonata Hall var. alpenensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 362, pl. 28, fig. 18.
Hamilton beds Alpena Mich.

1332 $\frac{7385}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 28, fig. 19.
Hamilton beds Alpena Mich.

1333 $\frac{7385}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1894 v. 8, pt 2, pl. 28, fig. 20.
Hamilton beds Alpena Mich.

Cyrtina varia Clarke

1334 $\frac{7386}{1}$ TYPE: PLASTOTYPE Cyrtina varia Clarke. New York state museum memoir 3. 1900. p. 49, pl. 6, fig. 15.
Oriskanian Becraft mountain, Hudson N. Y.

1335 $\frac{7386}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 16–18.
Oriskanian Becraft mountain, Hudson N. Y.

1336 $\frac{7386}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.

1337 $\frac{7386}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 20, 21.
Oriskanian Becraft mountain, Hudson N. Y.

1338 $\frac{7386}{5}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

4356 7242 HYPOTYPE Dalmanella leonensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 42.

Chemung beds — Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 8, fig. 1.

Dalmanella (?) plicifera Hall

4357 7243 TYPE Leptaena plicifera Hall. Paleontology of New York. 1847. 1:19, pl. 4 bis, fig. 1a.

Chazy limestone — Chazy N. Y.

4358 7243 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 1b.

Chazy limestone — Chazy N. Y.

On slab with type of pl. 4 bis, fig. 1a.

Dalmanella quadrans Hall

4359 7244 TYPE Orthis quadrans Hall. Paleontology of New York. 1861. v. 3 (corrigenda in volume with plates), pl. 12, fig. 9a–9c.

Helderbergian — Albany county, N. Y.

Dalmanella stonensis Safford

4360 7245 TYPE Orthis stonensis Safford. Geology of Tennessee. 1869. p. 286.

Dalmanella stonensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5C, fig. 4, 5.

Trenton horizon — Near Nashville Tenn.
James M. Safford, donor

Delthyris acuminata *see* Spirifer acuminatus
Delthyris arenosa *see* Spirifer arenosus
Delthyris audaculus *see* Spirifer audaculus
Delthyris duodenarius *see* Spirifer duodenarius
Delthyris fimbriatus *see* Spirifer fimbriatus
Delthyris granulosa *see* Spirifer granulosus
Delthyris laevis *see* Spirifer laevis
Delthyris macronota *see* Spirifer macronotus
Delthyris macropleura *see* Spirifer macropleura
Delthyris mesacostalis *see* Spirifer mesacostalis
Delthyris mucronata *see* Spirifer mucronatus
Delthyris raricosta *see* Spirifer raricosta
Delthyris sculptilis *see* Spirifer sculptilis

DERBYA Waagen

Derbya keokuk Hall

7400/1 HYPOTYPE: HYPOPLASTOTYPE Orthis keokuk Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 640.

Derbya keokuk Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 1, 2.

Knobstone (Keokuk) group — New Providence Ind.

DIGNOMIA Hall

Dignomia alveata Hall

7410/1 TYPE Lingula alveata Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 23.

Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 14.

Dignomia alveata Hall. Notes on some new or imperfectly known forms among the Brachiopoda. 1872. pl. 13, fig. 3.

Hall. 23d annual report of the New York state cabinet of natural history. 1873. pl. 13, fig. 3.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 24.

Hamilton shales — Fultonham N. Y.
W. M. Gabb, coll. 1857

7410/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 25.

Hamilton shales — Canandaigua lake, N. Y.
J. M. Clarke purchase

7410/3 HYPOTYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 1.

Upper Hamilton shales Livonia salt shaft, Livonia N. Y.
D. D. Luther, coll. 1891

DINOBOLUS Hall

Dinobolus conradi Hall

7420/1 HYPOPLASTOTYPE Obolus conradi Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 368.

Dinobolus conradi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 14.

Niagaran — Near Le Claire Ia.

1366 14820 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 16.
Niagaran Near Le Claire Ia.

1367 14820 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 17.
Niagaran Near Le Claire Ia.

1368 14820 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 20.
Niagaran Near Le Claire Ia.

1369 14820 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 21.
Niagaran Near Le Claire Ia.

Discina sp. ? *see* Orbiculoidea media *var.*

Discina alleghania *see* Orbiculoidea allegania

Discina doria *see* Orbiculoidea doria

Discina grandis *see* Roemerella grandis

Discina lodensis *see* Orbiculoidea lodensis

Discina manhattanensis *see* Orbiculoidea manhattanensis

Discina marginalis *see* Orbiculoidea marginalis

Discina media *see* Orbiculoidea media

Discina neglecta *see* Orbiculoidea neglecta

Discina newberryi *see* Orbiculoidea newberryi

Discina randalli *see* Orbiculoidea randalli

Discina tullia *see* Orbiculoidea tullia

DISCINOPSIS Matthew

Discinopsis gulielmi Matthew

1370 14821 HYPOPLASTOTYPE Acrotreta? gulielmi Matthew. Transactions of the Royal society of Canada. 1886. 3:37.
Discinopsis gulielmi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 22.
St John group Portland N. B.

DOUVILLINA Oehlert

Douvillina cayuta Hall

371 14822 HYPOTYPE. HYPOPLASTOTYPE Strophodonta cayuta Hall. Paleontology of New York. 1867. 4:110.
Douvillina cayuta Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 7.
Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood. coll. 1871

7440 HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 8.
Chemung group Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871

Douvillina inaequiradiata Hall (sp.)

7450/1 HYPOTYPE Strophomena (Strophodonta) inaequiradiata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 113.
Strophodonta inaequiradiata Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 24, 25.
Schoharie grit Schoharie N. Y.

7450/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 29.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

7450/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 30.
Schoharie grit Schoharie N. Y.

Douvillina inaequistriata Conrad (sp.)

7451/1 HYPOTYPE Strophomena inaequistriata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:254.
Strophodonta inaequistriata Hall. Paleontology of New York. 1867. v. 4, pl. 12, fig. 8.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

7451/1 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2a, 2d.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

7451/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2c, 2f.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

7451/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 2i.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1380 $\frac{7451}{6}$ HYPOTYPE Douvillina inequistriata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 9.
Hamilton shales Canandaigua lake, N. Y.

EATONIA Hall

Eatonia medialis Vanuxem (sp.)

1381 $\frac{7460}{1}$ HYPOTYPE Atrypa medialis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 120.
Eatonia medialis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 32.
Helderbergian Albany county, N. Y.

Eatonia sinuata Hall

1382 $\frac{7461}{1}$ HYPOTYPE Eatonia sinuata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 91.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 61, fig. 37.
Helderbergian Cumberland Md.

EICHWALDIA Billings

Eichwaldia reticulata Hall

1383 $\frac{7470}{1}$ HYPOTYPE Rhynchonella? reticulata Hall. Transactions of the Albany institute. 1863. 4: 217.
Eichwaldia reticulata Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 11.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 83, fig. 9.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1894

1384 $\frac{7470}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 308, fig. 231.
Niagaran Waldron Ind.

ELKANIA Ford

Elkania desiderata Billings (sp.)

1385 $\frac{7480}{1}$ HYPOPLASTOTYPE Obolella desiderata Billings. Paleozoic fossils. 1865. 1: 69.
Elkania desiderata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 15.
Upper Cambric Point Levis, Quebec

6 $\frac{7480}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 18.
Upper Cambric Point Levis, Quebec

ENTELES Fischer de Waldheim (emend.)

Enteles hemiplicatus Hall

7 $\frac{7490}{1}$ HYPOTYPE Spirifer hemiplicatus Hall. Stansbury's expedition to the Great Salt lake. 1852. p. 409.
Enteletes hemiplicata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 49, 50.
Upper Coal measures Winterset Ia.

8 $\frac{7490}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 51, 52.
Upper Coal measures Winterset Ia.

EUMETRIA Hall

Eumetria vera *var.* **costata** Hall

9 $\frac{7500}{1}$ HYPOTYPE Retzia vera var. costata Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 704.
Eumetria vera var. costata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 27.
Chester limestone Crittenden county, Ky.

o $\frac{7500}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 33.
Chester limestone Crittenden county, Ky.

Eumetria verneuiliana Hall

1 $\frac{7501}{1}$ HYPOTYPE Retzia verneuiliana Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 657.
Eumetria verneuiliana Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 19.
St Louis beds Spergen hill, Washington co. Ind.

2 $\frac{7501}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 51, fig. 21.
St Louis beds Spergen hill, Washington co. Ind.

EUNELLA Hall & Clarke

Eunella sullivanti Hall

3 $\frac{7510}{1}$ TYPE Terebratula sullivanti Hall. Paleontology of New York. 1867. 4:387, pl. 60, fig. 5–7.

Eunella sullivanti Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 80, fig. 24–26.
Onondaga limestone — Columbus O.
R. P. Whitfield, coll. 1865

1394 $\frac{15_2 10}{}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 8.
Onondaga limestone — Cayuga Co.
J. De Cew, coll. 1866

1395 $\frac{15_3 10}{}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 60, fig. 9, 10.
Onondaga limestone — Cayuga Co.
J. De Cew, coll. 1866

GLOSSINA Phillips

Glossina acuminata Conrad (sp.)

1396 $\frac{15_1 20}{}$ HYPOTYPE Lingula acuminata Conrad. 3d annual report of the New York geological survey. 1839. p. 64.
Glossina acuminata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 1.
Potsdam beds — Saratoga N. Y.
C. D. Walcott, coll. 18[illegible]

1397 $\frac{15_2 20}{}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 2.
Potsdam beds — Saratoga N. Y.
C. D. Walcott, coll. 18[illegible]

Glossina riciniformis Hall

1398 $\frac{15_1 21}{}$ HYPOTYPE Lingula riciniformis Hall. Paleontology of New York. 1847. 1:95.
Glossina riciniformis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 3.
Trenton limestone — Middleville N. Y.

Hemipronites apicalis *see* Polytoechia apicalis

HINDELLA Davidson

Hindella prinstana Billings (sp.)

1399 $\frac{15_1 30}{}$ HYPOTYPE Athyris prinstana Billings. Paleozoic fossils. 1862. 1:145.
Hindella prinstana Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 1.
Anticosti group — Junction cliff, Anticosti
Alpheus Hyatt, don.

Hindella umbonata Billings (sp.)

7531/1 HYPOTYPE Athyris umbonata Billings. Paleozoic fossils. 1862. 1:144.

Hindella umbonata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 64, fig. 51.

Anticosti group — Junction cliff, Anticosti
Alpheus Hyatt, donor

HIPPARIONYX Vanuxem

Hipparionyx proximus Vanuxem

7540/1 TYPE Hipparionyx proximus Vanuxem. Geology of New York; report on the 3d district. 1842. p. 124, fig. 4.

Atrypa unguiformis (Conrad) Hall. Geology of New York; report on the 4th district. 1843. p. 149, fig. 4.

Oriskanian — Albany county, N. Y.
Albany institute, donor

HOMOEOSPIRA Hall & Clarke

Homoeospira evax Hall

7550/1 HYPOTYPE Rhynchospira evax Hall. Transactions of the Albany institute. 1863. 4:213.

Homoeospira evax Hall and Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 20.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7550/2 HYPOTYPE Retzia evax Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 3, 3a.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7550/3 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 5.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7550/4 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 6.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 18.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1406 $\frac{13320}{8}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 7.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 19.
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1407 $\frac{13320}{8}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 8.
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1408 $\frac{13320}{8}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 9.
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1409 $\frac{13320}{8}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 27 growth stages).
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Homoeospira (cf.) evax Hall

1410 $\frac{13321}{8}$ HYPOTYPE Homoeospira (cf.) evax Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 33.
Upper Silurie — Perry county, Tenn.

1411 $\frac{13321}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 34, 35.
Upper Silurie — Perry county, Tenn.

Homoeospira sobrina Beecher & Clarke (sp.)

1412 $\frac{13322}{8}$ TYPE Retzia sobrina Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 10, 10a, 13, 13a.
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1413 $\frac{13322}{8}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 11–11b.
Homoeospira sobrina Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 26–28.
Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1414 $\frac{7552}{3}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 12.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1415 $\frac{7552}{4}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 14, 14a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1416 $\frac{7552}{5}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 15, 15a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1417 $\frac{7552}{6}$ TYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 5, fig. 16, 16a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

HUSTEDIA Hall & Clarke

Hustedia mormoni Marcou (sp.)

1418 $\frac{7560}{1}$ HYPOTYPE Terebratula mormoni Marcou. Geology of North America. 1858. p. 51.
Hustedia mormoni Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 121, fig. 106.
Coal measures Manhattan Kan.

HYATTELLA Hall & Clarke

Hyattella congesta Conrad (sp.)

1419 $\frac{7570}{1}$ HYPOTYPE Atrypa congesta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 265.
Hyattella congesta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 26.
Clinton beds Reynale's Basin N. Y.

1420 $\frac{7570}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 27, 28.
Clinton beds Lockport N. Y.

Hyattella junia Billings (sp.)

1421 $\frac{7571}{1}$ HYPOTYPE Athyris junia Billings. Catalogue Silurian fossils Anticosti. 1886. p. 46.
Hyattella junia Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 29–31.
Anticosti group Cape East, Anticosti

HYPOTHYRIS King

Hypothyris venustula Hall

1422 $\frac{7580}{1}$ TYPE Rhynchonella venustula Hall. Paleontology of New York. 1867. 4:346, pl. 54A, fig. 30–32.
Tully limestone Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

1423 $\frac{7580}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 33.
Tully limestone Ovid, Seneca co. N. Y.

1424 $\frac{7580}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 34–39.
Hypothyris venustula Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 55.
Tully limestone Ovid N. Y.

1425 $\frac{7580}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 54A, fig. 42.
Tully limestone Tinker's falls, Onondaga co. N. Y.

1426 $\frac{7580}{5}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 1.
Tully limestone horizon New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895

1427 $\frac{7580}{6}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 2.
Tully limestone horizon New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895

1428 $\frac{7580}{7}$ HYPOTYPE Prosser. 15th annual report of the New York state geologist. 1897. 1:184, fig. 3–5.
Tully limestone New Lisbon [Noblesville] N. Y.
C. S. Prosser, coll. 1895

IPHIDEA Billings

Iphidea *cf.* ornatella Linnarsson

1429 $\frac{7600}{1}$ HYPOTYPE Iphidea cf. ornatella Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 6, 7.
Tonto group (Cambric) Grand canyon, Ari.

KUTORGINA Billings

Kutorgina cingulata Billings

7600/1 HYPOTYPE Kutorgina cingulata Billings. Geology of Vermont. 1861. 2:948.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 12.
Georgian — Swanton Vt.
S. W. Ford collection

7600/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 13, 14.
Georgian — Swanton Vt.
S. W. Ford collection

7600/3 HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 15.
Georgian — Swanton Vt.
S. W. Ford collection

7600/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 17.
Georgian — Swanton Vt.
S. W. Ford collection

Kutorgina latourensis Matthew

7601/1 HYPOPLASTOTYPE Kutorgina latourensis Matthew. Transactions of the Royal society of Canada. 1886. 3:42.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 18–20.
St John group — Portland N. B.

LEPTAENA Dalman

Leptaena alternata *see* Rafinesquina alternata
Leptaena bipartita *see* Strophomena (?) bipartita
Leptaena fasciata *see* Rafinesquina fasciata
Leptaena incrassata *see* Rafinesquina incrassata
Leptaena nucleata *see* Anoplia nucleata
Leptaena plicifera *see* Dalmanella (?) plicifera
Leptaena profunda *see* Brachyprion profundum
Leptaena punctulifera *see* Strophonella punctulifera

Leptaena rhomboidalis Wilckens (sp.)

7610/1 HYPOTYPE Conchita rhomboidalis Wilckens. Nachricht von seltenen Versteinerungen. 1769. p. 77.

Strophomena rhomboidalis Hall. Paleontology of New York. 1867. v. 4; pl. 15, fig. 15.

Hall. 2d annual report of the New York state geologist. 1883. pl. 38, fig. 30.

Leptaena rhomboidalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 8, fig. 30.

Waverly group — Mallet's creek, Medina co. O. C. A. White, coll. 1861

1436 1910 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 38, fig. 31.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 8, fig. 31.

Waverly group — York Center, Medina co. O. C. A. White, coll. 1861

1437 1910 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 20, fig. 23.

Niagaran — Waldron Ind.

Leptaena (Strophomena) spiriferoides *see* Triplecia spiriferoides

Leptaena subplana *see* Orthothetes subplana

LEPTAENISCA Beecher

Leptaenisca adnascens Hall & Clarke

1438 1910 TYPE Leptaenisca adnascens Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 352, pl. 15 A, fig. 22.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 6, fig. 26.

New Scotland beds — Near Clarksville N. Y. J. M. Clarke collection

LEPTOBOLUS Hall

Leptobolus insignis Hall

1439 1910 HYPOTYPE Leptobolus insignis Hall. Description of new species of fossils from the Hudson river group. 1871. p. 3

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 1

[illegible] State — Holland Patent N. Y. C. Haskell purchase

$\frac{7630}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 2.
Utica slate Cold Spring, east of Little Falls N. Y.
C. Van Deloo, coll. 1880

Leptobolus walcotti Ruedemann

$\frac{7631}{1}$ TYPE Leptobolus walcotti Ruedemann. New York state museum bulletin 42. 1901. p. 569, pl. 1, fig. 6.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899

$\frac{7631}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 7.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899

$\frac{7631}{3}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 8.
Trenton (Normanskill) shale
Mount Moreno, Hudson N.Y.
R. Ruedemann and M. Sheehy, coll. 1899

$\frac{7631}{4}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 9.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899

$\frac{7631}{5}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 10.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899
On slab with Schizotreta papilliformis, N. Y. state mus. bul. 42, pl. 1, fig. 5.

$\frac{7631}{6}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 11.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899

$\frac{7631}{7}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 12.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y
R. Ruedemann and M. Sheehy, coll. 18

LEPTOCOELIA Hall

Leptocoelia concava *see* Coelospira concava

Leptocoelia dichotoma *see* Coelospira dichotoma

Leptocoelia fimbriata Hall

1448 $\frac{1}{1}\frac{6}{9}\frac{4}{4}\frac{0}{0}$ HYPOTYPE Leptocoelia fimbriata Hall. 12th annual report of the New York state cabinet of natural history. 1859. p. 33.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 47.

Oriskanian Cumberland Md.

1449 $\frac{1}{3}\frac{6}{9}\frac{4}{4}\frac{0}{0}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 48.

Oriskanian Cumberland Md.

1450 $\frac{1}{3}\frac{6}{9}\frac{4}{4}\frac{0}{0}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 49, 51.

Oriskanian Cumberland Md.

1451 $\frac{1}{3}\frac{6}{9}\frac{4}{4}\frac{0}{0}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 55.

Oriskanian Cumberland Md.

Leptocoelia flabellites Conrad (sp.)

1452 $\frac{1}{1}\frac{6}{9}\frac{4}{4}\frac{1}{1}$ HYPOTYPE Atrypa flabellites Conrad. 5th annual report of the New York geological survey. 1841. p. 55.

Leptocoelia flabellites Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 40–42.

Oriskanian Cumberland Md.

1453 $\frac{1}{3}\frac{6}{9}\frac{4}{4}\frac{1}{1}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 45.

Oriskanian Cumberland Md.

1454 $\frac{1}{3}\frac{6}{9}\frac{4}{4}\frac{1}{1}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 53, fig. 46.

Oriskanian Cumberland Md.

1455 $\frac{1}{1}\frac{6}{9}\frac{4}{4}\frac{1}{1}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 33, 34.

Oriskanian Becraft mountain, Hudson N. Y.

1456 $\frac{2}{1}\frac{6}{9}\frac{4}{4}\frac{1}{1}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 35, 36.

Oriskanian Becraft mountain, Hudson N. Y.

Leptocoelia imbricata *see* Atrypina imbricata

LEPTOSTROPHIA Hall & Clarke

Leptostrophia junia Hall

7650/1 HYPOTYPE Strophomena textilis Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 141.

Strophodonta junia Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 9.

Hamilton shales — Ogdens ferry, Cayuga lake, N. Y. C. A. White, coll. 1860

7650/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 17.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 16.

Leptostrophia junia Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 16.

Hamilton shales — West Bloomfield N. Y. C. A. White and C. Van Deloo, coll. 1860

7650/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 3c.

Hamilton shales — West Bloomfield N. Y.

7650/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 3d.

Hamilton shales — York, Livingston co. N. Y. C. A. White and C. Van Deloo, coll. 1860

Leptostrophia perplana Conrad (sp.)

7651/1 HYPOTYPE Strophomena perplana Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:257.

Strophodonta perplana Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 22.

Schoharie grit — Knox, Albany co. N. Y. C. Van Deloo, coll. 1862

7651/2 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 7, 8.

Hamilton beds — Madison county, N. Y.

7651/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 1c, 1e.

Leptostrophia perplana Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 11.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y. C. A. White and C. Van Deloo, coll. 186

1464 $\frac{1651}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 1k.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 9.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 9.

Hamilton shales — Canandaigua lake, N. Y.

1465 $\frac{1651}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 1l.

Hall. 2d annual report of the New York state geologist. 1883. pl. 46, fig. 10.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15, fig. 10.

Hamilton shales — York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

On slab with Stropheodonta demissa, Pal. N.Y. v.4, pl. 17, fig. 2a.

1466 $\frac{1651}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 19, fig. 17.

Chemung beds — Nichols, Tioga co. N. Y.

Leptostrophia perplana *var.* nervosa Hall

1467 $\frac{1652}{1}$ HYPOTYPE Strophomena nervosa Hall. Geology of New York; report on the 4th district. 1843. p. 266.

Strophodonta perplana var. nervosa Hall. Paleontology of New York. 1867. v. 4. pl. 19, fig. 13.

Ithaca beds — Homer, Cortland co. N. Y.

Leptostrophia lincklaeni Hall

1468 $\frac{1653}{1}$ HYPOTYPE Strophodonta lincklaeni Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 55.

Leptostrophia lincklaeni Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 37.

Oriskanian — Becraft mountain, Hudson N. Y.

Leptostrophia magnifica Hall

1469 $\frac{1654}{1}$ TYPE Strophodonta magnifica Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 54.

Hall. Paleontology of New York. 1859. v. 3 pl. 94, fig. 2a

Ori[illegible] — county, N. Y

147 ○ 7654/2 TYPE Hall, Paleontology of New York. 1859. v. pl. 94, fig. 2b.
Oriskanian Schoharie county, N. Y

147 I 7654/3 TYPE Hall, Paleontology of New York. 1859. v. pl. 95, fig. 8.
Oriskanian Schoharie county, N. Y

Leptostrophia *cf.* magnifica Clarke

1472 7655/1 HYPOTYPE: HYPOPLASTOTYPE New York state museum memoir 3. 1900. pl. 7, fig. 36.
Oriskanian Becraft mountain, Hudson N. Y

Leptostrophia magniventra Hall

1473 7656/1 TYPE: PLASTOTYPE Strophodonta magniventra Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 54.
Hall. Paleontology of New York. 1859. v. pl. 95, fig. 9.
Oriskanian The Helderberg, Albany co. N. Y

Leptostrophia mucronata Conrad (sp.)

1474 7657/1 HYPOTYPE Strophomena mucronata Conrad Journal of the Academy of natural sciences of Philadelphia. 1842. 8:257.
Leptostrophia mucronata Clarke. 15th annual report of the New York state geologist. 1898. 1:3 fig. 3.
Ithaca beds Spafford N. Y
D. D. Luther, coll. 189

Leptostrophia oriskania Clarke

1475 7658/1 TYPE Leptostrophia oriskania Clarke. New York state museum memoir 3. 1900. p. 53, pl. fig. 28, 34.
Oriskanian Becraft mountain, Hudson N. Y

1476 7658/2 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 28, 34.
Oriskanian Becraft mountain, Hudson N. Y

1477 7658/3 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 30.
Oriskanian Becraft mountain, Hudson N. Y

1478 7658/4 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 31.
Oriskanian Becraft mountain, Hudson N. Y

1479 $\frac{1658}{6}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 32.
Oriskanian Becraft mountain, Hudson N. Y.

1480 $\frac{1658}{6}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 33.
Oriskanian Becraft mountain, Hudson N. Y.

1481 $\frac{1658}{7}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 35.
Oriskanian Becraft mountain, Hudson N. Y.

LINDSTROEMELLA Hall & Clarke

Lindstroemella aspidium Hall & Clarke

1482 $\frac{1670}{1}$ TYPE: PLASTOTYPE Lindstroemella aspidium Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 178, pl. 4E, fig. 25, 26.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 1, 2.
Hamilton beds Near Hamilton N. Y.

1483 $\frac{1670}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 27.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 3.
Hamilton beds Near Leonardsville N. Y.

LINGULA Bruguiére

Lingula acuminata *see* Glossina acuminata

Lingula alveata *see* Dignomia alveata

Lingula antiqua *see* Lingulepis antiqua

Lingula compta Hall & Clarke

1484 $\frac{1680}{1}$ TYPE Lingula compta Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 171, pl. 1, fig. 16.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 1.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

Lingula cuneata Conrad

1485 $\frac{1681}{1}$ HYPOTYPE Lingula cuneata Conrad. 2d annual
of the paleontological department of the survey of
1839. p. 64.
ke. Paleontology of New York. 1892.
ig. 11.
ne Albion N. Y.

6 $\frac{7681}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 12.
Medina sandstone Albion N. Y.
On slab with type of pl. 1, fig. 11.

7 $\frac{7681}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York, 1892. v. 8, pt 1, pl. 4K, fig. 9.
Medina sandstone Medina N. Y.

Lingula delia Hall

8 $\frac{7682}{1}$ TYPE Lingula delia Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 9.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 29.
Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Lingula *cf.* densa Hall

9 $\frac{7682}{1}$ HYPOTYPE Lingula densa Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Lingula cf. densa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 23.
Hamilton shales Centerfield N. Y.
J. M. Clarke purchase

Lingula exilis *see* Oehlertella exilis

Lingula lamellata Hall

90 $\frac{7684}{1}$ HYPOTYPE Lingula lamellata Hall. Geology of New York; report on the 4th district. 1843. p. 109.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 9, 10.
Rochester shales Lockport N. Y.

Lingula norwoodi *see* Lingulops norwoodi

Lingula nuda Hall

1 $\frac{7685}{1}$ TYPE Lingula nuda Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 22.
Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 4.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Lingula palaeformis *see* Lingulella? paliformis

Lingula pinnaformis *see* Lingulepis pinniformis

Lingula pinniformis *see* Lingulepis pinniformis

Lingula? polita *see* Obolella? polita

Lingula procteri Ulrich

1492 $\frac{7686}{1}$ HYPOTYPE Lingula procteri Ulrich. American geologist. 1889. 3:377.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 7.

Cincinnatian Cincinnati O.

Lingula punctata Hall

1493 $\frac{7687}{1}$ TYPE Lingula punctata Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 21.

Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6a.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1494 $\frac{7687}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6b.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1495 $\frac{7687}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6c.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1496 $\frac{7687}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 6f.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1497 $\frac{7687}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 26.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1498 $\frac{7687}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 27.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

1499 $\frac{7687}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 28.

Hamilton shales Canandaigua lake, N. Y.
J. M. Clarke purcha

Lingula riciniformis *see* Glossina riciniformis

Lingula scutella Hall & Clarke

[6882/1 TYPE Lingula scutella Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 171, pl. 1, fig. 30.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 3.

Chemung beds — Allegany county, N. Y.

Lingula spatulata Vanuxem

7889/1 HYPOTYPE Lingula spatulata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 168.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 15.

Genesee slate — Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Lingula subspatulata *see* Barroisella subspatulata

Lingula sp ? *cf.* cuyahoga Hall

7890/1 HYPOTYPE Lingula sp.? cf. cuyahoga Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 1, fig. 18.

Chemung (?) beds — Panama N. Y.

C. Van Deloo, coll. 1870

Lingula triquetra Clarke

7891/1 TYPE Lingula triquetra Clarke. United States geological survey bulletin 16. 1885. p. 62, pl. 3, fig. 11.

Portage (Naples) beds — Naples N. Y.

J. M. Clarke, donor

Lingula waverliensis Herrick

7892/1 HYPOPLASTOTYPE Lingula waverliensis Herrick. Bulletin of Denison university. 1888. 4:12, 18.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 7.

Waverly sandstone — Oil City Pa.

LINGULELLA Salter

Lingulella caelata Hall

7700/1 HYPOTYPE Orbicula caelata Hall. Paleontology of New York. 1847. 1:290.

Lingulella caelata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 1.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

1506 $\frac{7700}{2}$ HYPOTYPE Walcott. United States geological survey bulletin 30. 1886. pl. 7, fig. 1.
Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 67, fig. 1.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 2.
Lower Cambric Troy N. Y.
S. W. Ford purchase

1507 $\frac{7700}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 3.
Lower Cambric Troy N. Y.
S. W. Ford purchase

1508 $\frac{7700}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 4.
Lower Cambric Troy N. Y.
S. W. Ford purchase

Lingulella ? paliformis Hall

1509 $\frac{7701}{1}$ HYPOTYPE Lingula palaeformis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 76.
Lingulella ? paliformis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 6.
Hamilton shales Shurger's glen, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

1510 $\frac{7701}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 7.
Hamilton shales Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

1511 $\frac{7701}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 8.
Hamilton shales Shurger's glen, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

LINGULEPIS Hall

Lingulepis antiqua Hall

1512 $\frac{7710}{1}$ TYPE Lingula antiqua Hall. Paleontology of New York. 1847. 1 : 3, pl. 1, fig. 3c.
Potsdam sandstone Hammond, St Lawrence co. N. Y.

1513 $\frac{7710}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 1, fig. 3d.
Potsdam sandstone Hammond N. Y.
On slab with type of pl. 1, fig. 3c.

Lingulepis pinniformis Owen (sp.)

7111/1 HYPOTYPE Lingula pinniformis Owen. Geological survey of Wisconsin, Iowa and Minnesota. 1852. p. 583.

Lingula pinnaformis Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 6, fig. 12.

Potsdam sandstone — Falls of St Croix Wis.

LINGULOPS Hall

Lingulops granti Hall & Clarke

7120/1 PLASTOTYPE Lingulops granti Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 173, pl. 4K, fig. 14.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 8.

Niagaran — Hamilton Ont.

7120/2 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 15.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 7.

Niagaran — Hamilton Ont.

Lingulops norwoodi James (sp.)

7121/1 HYPOPLASTOTYPE Lingula norwoodi James. Cincinnati quarterly journal of science. 1875. 2:10.

Lingulops norwoodi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl 2, fig. 25.

Cincinnatian — Cincinnati O.

7121/2 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 26.

Cincinnatian — Cincinnati O.

Lingulops whitfieldi Hall

7122/1 PLASTOTYPE Lingulops whitfieldi Hall. Notes on some new or imperfectly known forms among the Brachiopoda. 1872. pl. 13, fig. 2.

Hall. 23d annual report of the New York state cabinet of natural history. 1873. pl. 13, fig. 2.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 28.

Cincinnatian — Maquoketa creek near Dubuque Ia.

1520 $\frac{7722}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 29.
Cincinnatian Maquoketa creek near Dubuque Ia.

1521 $\frac{7722}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 30.
Cincinnatian Maquoketa creek near Dubuque Ia.

LINNARSSONIA Walcott

Linnarssonia pretiosa Billings (sp)

1522 $\frac{7730}{1}$ HYPOTYPE: HYPOPLASTOTYPE Obolella pretiosa Billings. Paleozoic fossils. 1865. 1:68.
Linnarssonia pretiosa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 43.
Upper Cambric Little Metis, Quebec
Sir W. Dawson, donor

1523 $\frac{7730}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 44.
Upper Cambric Little Metis, Quebec
Sir W. Dawson, donor

Linnarssonia transversa Hartt (sp.)

1524 $\frac{7731}{1}$ HYPOPLASTOTYPE Obolella transversa Hartt. Dawson's Acadian geology. Ed. 2. 1868. p. 644.
Linnarssonia transversa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 39.
St John group Porter's brook, N. B.

1525 $\frac{7731}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 3, fig. 40, 41.
St John group Porter's brook N. B.

LIORHYNCHUS Hall

Liorhynchus (?) boonense Shumard (sp.)

1526 $\frac{7740}{1}$ HYPOTYPE Rhynchonella boonensis Shumard. Geological report of Missouri. 1855. p. 205.
Liorhynchus boonensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 35.
Choteau limestone Cooper county, Mo.

Liorhynchus globuliforme Vanuxem (sp.)

[illegible] $\frac{7741}{1}$ HYPOTYPE Atrypa globuliformis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 182.
Leiorhynchus globuliformis Hall. Paleontology of New York. 1867. v. 4, pl. 57, fig. 27.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 59, fig. 26.

Ithaca beds — Otsego county, N. Y.

8 $\frac{7741}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1867. v. 4, pl. 57, fig. 29.

Ithaca beds — Otsego county, N. Y.

On slab with type of v. 4, pl. 57, fig. 27.

9 $\frac{7741}{3}$ HYPOTYPE Hall & Clark. Paleontology of New York. 1894. v. 8, pt 2, pl. 59, fig. 27.

Ithaca beds — Broome county, N. Y.

Liorhynchus laura Billings (sp.)

0 $\frac{7742}{1}$ HYPOTYPE Rhynchonella? laura Billings. Canadian journal. May 1860. 5:273.

Liorhynchus laura Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 59, fig. 15, 16.

Hamilton beds — Thedford Ont.

1 $\frac{7742}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 59, fig. 17.

Hamilton beds — Thedford Ont.

Liorhynchus limitare Vanuxem (sp.)

2 $\frac{7743}{1}$ HYPOTYPE Orthis limitaris Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.

Leiorhynchus limitaris Hall. Paleontology of New York. 1867. v. 4, pl. 56, fig. 21.

Marcellus shales — Otisco lake, N. Y.

G. B. Simpson, coll. 1863

Liorhynchus multicostum Hall

3 $\frac{7744}{1}$ HYPOTYPE Leiorhynchus multicosta Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 85.

Hall. Paleontology of New York. 1867. v. 4, pl. 56, fig. 28.

Hamilton beds — Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Liorhynchus quadricostatum Vanuxem (sp.)

4 $\frac{7745}{1}$ HYPOTYPE Orthis quadracostata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 168.

Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 26, 27, 30.
Hamilton shales — York, Livingston co. N. Y.
C. A. White, coll. 1860

1549 7773/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 28, 31.
Hamilton shales — York N. Y.
C. A. White, coll. 1860

1550 7773/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49, fig. 29, 32, 33.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 43, fig. 23, 24.
Hamilton shales — York N. Y.
C. A. White, coll. 1860

1551 7773/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 49 fig. 34.
Hamilton shales — York N. Y.
C. A. White, coll. 1860

1552 7773/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 31.
Hamilton shales — Canandaigua lake, N. Y.
Meristella laevis *see* Whitfieldella *cf.* laevis

Meristella lenta Hall

1553 7774/1 HYPOTYPE Meristella lenta Hall. Paleontology of New York. 1867. 4:420.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 18.
Oriskanian — De Cewville Ont.

Meristella lentiformis Clarke

1554 7775/1 TYPE Meristella lentiformis Clarke. New York state museum memoir 3. 1900. p. 44, pl. 6, fig. 5, 6.
Oriskanian — Becraft mountain, Hudson N. Y.

1555 7775/2 TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 7.
Oriskanian — Becraft mountain, Hudson N. Y.

1556 7775/3 TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 8–10.
Oriskanian — Becraft mountain, Hudson N. Y.

7776/4 TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

Meristella maria *see* Meristina maria

Meristella nasuta Conrad (sp.)

7776/1 HYPOTYPE Atrypa nasuta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:265.
Meristella nasuta Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 1.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 26.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

7776/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 2.
Schoharie grit Schoharie county, N. Y.

7776/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 3.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 14.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

7776/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 5.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 13.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

7776/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 6.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

7776/6 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 48, fig. 15, 16.
Schoharie grit Schoharie county, N. Y.

7776/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 19.
Onondaga limestone Leroy N. Y.

1565 $\frac{1776}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 24.
Onondaga limestone Leroy N. Y.
Meristella rectirostra *see* Meristina rectirostra

Meristella rostrata Hall

1566 $\frac{1777}{1}$ HYPOTYPE Atrypa rostrata Hall. Geology of New York; report on the 4th district. 1843. p. 202.
Meristella rostrata Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 13–16.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 43, fig. 27, 28.
Tully limestone Ovid, Seneca co. N. Y.

1567 $\frac{1777}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 17.
Tully limestone Ovid N. Y.

1568 $\frac{1777}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 63, fig. 15–18.
Hamilton shales Pavilion, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
Meristella ? unisulcata *see* Pentagonia unisulcata *var.* biplicata
Meristella (Pentagonia) unisulcata *see* Pentagonia unisulcata
Meristella (Pentagonia) unisulcata var. biplicata *see* Pentagonia unisulcata *var.* biplicata

Meristella ? vascularia Clarke

1569 $\frac{1778}{1}$ TYPE Meristella? vascularia Clarke. New York state museum memoir 3. 1900. p. 45, pt 6, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

1570 $\frac{1778}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.

1571 $\frac{1778}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 14.
Oriskanian Becraft mountain, Hudson N. Y.

Meristella walcotti Hall & Clarke

1 istella walcotti Hall & Clarke. Pale-
York. 1894. v. 8, pt 2, p. 365, pl. 44,

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 27, 28.

Oriskanian Cayuga Ont.

C. D. Walcott, coll. 1878

7779/2 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 8.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 8, fig. 29.

Oriskanian Cayuga Ont.

7779/3 TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 44, fig. 10.

Oriskanian Cayuga Ont.

C. D. Walcott, coll. 1878

MERISTINA Hall

Meristina maria Hall

7790/1 HYPOTYPE Meristella maria Hall. Transactions of the Albany institute. 1863. 4: 212.

Meristina maria Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 8.

Niagaran Waldron Ind.

7790/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 10.

Niagaran Waldron Ind.

7790/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 12.

Niagaran Waldron Ind.

7790/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 13.

Niagaran Waldron Ind.

Meristina nitida *see* Whitfieldella nitida

Meristina rectirostra Hall

7791/1 TYPE Meristella rectirostra Hall. Descriptions of new species of fossils from Waldron Ind. 1879. p. 15.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 13.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7791/2 TYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 14.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 187[illegible]

1581 $\frac{7701}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 4, 4a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1582 $\frac{7701}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 5, 5a.
Niagaran Waldron Ind.

1583 $\frac{7701}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 11.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 18.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1584 $\frac{7701}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 13, 13a.
Meristina rectirostra Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 41, fig. 21.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

METAPLASIA Hall & Clarke

Metaplasia pyxidata Hall

1585 $\frac{7800}{1}$ HYPOTYPE: HYPOPLASTOTYPE Spirifer pyxidatus Hall. Paleontology of New York. 1859. 3: 428.
Metaplasia pyxidata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 19, 20.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866
On slab with type of v.8, pt 2, pl. 39, fig. 22.

1586 $\frac{7800}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 21.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866

1587 $\frac{7800}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 39, fig. 22.
Oriskanian Cayuga Ont.
J. DeCew, coll. 1866
th type of v. 8, pt 2, pl. 39, fig. 19, 20.

MIMULUS Barrande

Mimulus waldronensis Miller & Dyer (sp.)

7810/1 HYPOTYPE Spirifera (?) waldronensis Miller & Dyer. Journal of the Cincinnati society of natural history. 1878. 1:37.

Streptis waldronensis Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 9–9b.

Mimulus waldronensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 23, 24.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

7810/2 HYPOTYPE Triplesia putillus Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 19–22.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 10–10b.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 25–28.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

MONOMERELLA Billings

Monomerella egani Hall & Clarke

7820/1 PLASTOTYPE Monomerella egani Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 175, pl. 4C, fig. 16.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 3.

Niagaran Grafton Wis.

Monomerella greenii Hall & Clarke

7821/1 PLASTOTYPE Monomerella greenii Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 174, pl. 4D, fig. 5.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 9.

Niagaran Grafton Wis.

7821/2 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 7.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 12.

Niagaran Grafton Wis.

1593 $\frac{7822}{3}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 9.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 14.
Niagaran Grafton Wis.

1594 $\frac{7821}{4}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4D, fig. 10.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 11.
Niagaran Grafton Wis.

Monomerella kingi Hall & Clarke

1595 $\frac{7822}{1}$ PLASTOTYPE Monomerella kingi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 174, pl. 4D, fig. 1.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 1.
Niagaran Hawthorne Ill.

Monomerella ortoni Hall & Clarke

1596 $\frac{7822}{1}$ PLASTOTYPE Monomerella ortoni Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 175, pl. 4C, fig. 15.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 5.
Niagaran Rising Sun O.

Monomerella prisca Billings

1597 $\frac{7824}{1}$ HYPOPLASTOTYPE Monomerella prisca Billings. Canadian naturalist and geologist. 1871. new ser. 6: 221.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4C, fig. 7.
Niagaran Hawthorne Ill.

1598 $\frac{7824}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4C, fig. 13.
Niagaran Hawthorne Ill.

NEWBERRIA Hall

Newberria johannis Hall

1599 $\frac{7826}{1}$ TYPE Rensselaeria? johanni Hall. Paleontology of New York. 1859. 4: 355, pl. 58A, fig. 12.
Newberria johannis Hall. 10th annual report of the New York state geologist. 1891. pl. 6, fig. 1.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 78, fig. 14.

Hamilton beds — Waterloo Ia.
R. P. Whitfield, coll. 1866

7830/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58A, fig. 16, 17.

Hall. 10th annual report of the New York state geologist. 1891. pl. 6, fig. 10, 11.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 78, fig. 12, 13.

Hamilton beds — Waterloo Ia.
R. P. Whitfield, coll. 1866

NUCLEOSPIRA Hall

Nucleospira concinna Hall

7840/1 HYPOTYPE Atrypa concinna Hall. Geology of New York; report on the 4th district. 1843. p. 200.

Nucleospira concinna Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 33.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

7840/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 34, 35.

Onondaga limestone — Litchfield, Herkimer co. N. Y.

7840/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 37.

Hamilton shales — Alexander, Genesee co. N. Y.

7840/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 53.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 20.

Hamilton shales — Cardiff, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

7840/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 56.

Hamilton shales — Owasco lake, N. Y.
G. B. Simpson, coll. 1863

7840/6 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 57.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 19.

Hamilton shales — Skaneateles lake, N. Y.
W. M. Gabb, coll. 1857

1607 $\frac{7840}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 22.
Hamilton shales Canandaigua lake, N. Y.

1608 $\frac{7840}{8}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 24.
Hamilton shales Canandaigua lake, N. Y.

1609 $\frac{7840}{9}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 26.
Hamilton shales Canandaigua lake, N. Y.

1610 $\frac{7840}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 27.
Hamilton shales Canandaigua lake, N. Y.

1611 $\frac{7840}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 29.
Hamilton shales Canandaigua lake, N. Y.

1612 $\frac{7840}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 33.
Onondaga limestone Falls of the Ohio, Ky.

1613 $\frac{7840}{13}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 145, fig. 131.
Hamilton shales Canandaigua lake, N. Y.

Nucleospira elegans Hall

1614 $\frac{7841}{1}$ HYPOTYPE Nucleospira elegans Hall. Paleontology of New York. 1859. 3: 222.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 48, fig. 10.
Helderbergian Schoharie N. Y.

Nucleospira rotundata *see* Whitfieldella *d.* rotundata

Nucleospira ventricosa Hall

1615 $\frac{7842}{1}$ HYPOTYPE Spirifer ventricosus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 57.
Nucleospira ventricosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 39.
Helderbergian Near Clarksville N. Y.
TYPE Hall & Clarke. Paleontology of New York. v. 8, pt 2, p. 145, fig. 128.
rbergian Near Clarksville N. Y.

OBOLELLA Billings

Obolella crassa Hall

7850/1 HYPOTYPE Orbicula? crassa Hall. Paleontology of New York. 1847. 1 : 290.

Obolella crassa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 34.

Lower Cambric Troy N. Y.

S. W. Ford purchase.

7850/2 HYPOTYPE Ford. American journal of science. 1881. 3d ser. 21 : 131, fig. 1.

Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1f.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4f.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 35.

Lower Cambric Troy N. Y.

S. W. Ford purchase

7850/3 HYPOTYPE Ford. American journal of science. 1881. 3d ser. 21 : 131, fig. 2.

Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1d.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4d.

Hall & Clarke. Paleontology of New York. 1892 v. 8, pt 1, pl. 2, fig. 36.

Lower Cambric Troy N. Y.

S. W. Ford purchase

7850/4 HYPOTYPE Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 71, fig. 4.

Lower Cambric Troy N. Y.

S. W. Ford purchase

7850/5 HYPOTYPE (combination figure) Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 1b.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 67, fig. 1.

Lower Cambric Troy N. Y.

S. W. Ford purchase

Obolella desiderata *see* Elkania desiderata

Obolella gemma Billings

1622 $\frac{7851}{1}$ HYPOTYPE Obolella gemma Billings. Canadian naturalist and geologist. 1872. new ser. 6: 218.

Walcott. United States geological survey bulletin 30. 1886. pl. 10, fig. 2a.

Walcott. 10th annual report of the United States geological survey. 1890. pl. 72, fig. 2.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 42.

Lower Cambric Troy N. Y.

S. W. Ford purchase

1623 $\frac{7851}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 43 [34].

Lower Cambric Troy N. Y.

S. W. Ford purchase

1624 $\frac{7851}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 44.

Lower Cambric Troy N. Y.

S. W. Ford purchase

Obolella polita Hall

1625 $\frac{7852}{1}$ HYPOPLASTOTYPE Lingula? polita Hall. Annual report of the geological survey of Wisconsin. 1861. p. 24.

Obolella polita Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 2, fig. 38.

Potsdam sandstone Trempealeau Wis.

Obolella pretiosa *see* Linnarssonia pretiosa

Obolella transversa *see* Linnarssonia transversa

Obolus conradi *see* Dinobolus conradi

Obolus galtensis *see* Rhinobolus galtensis

OEHLERTELLA Hall & Clarke

Oehlertella exilis Hall

1626 $\frac{7860}{1}$ TYPE Lingula exilis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 76, 77, fig. 2.

Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 8.

Marcellus shale Bridgewater N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

1860/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 9.
Hamilton beds Schoharie county, N. Y.

Orbicula caelata *see* Lingulella caelata

Orbicula ? crassa *see* Obolella crassa

Orbicula ? filosa *see* Schizocrania filosa

Orbicula grandis *see* Roemerella grandis

Orbicula lodensis *see* Orbiculoidea lodensis

Orbicula tenuilamellata *see* Orbiculoidea (Schizotreta?) tenuilamellata

Orbicula? squamiformis *see* Pholidops squamiformis

ORBICULOIDEA d'Orbigny

Orbiculoidea allegania Hall

1870/1 HYPOTYPE Discina alleghania Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 77.
Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 17c.
Chemung beds Belvidere, Allegany co. N. Y.

Orbiculoidea doria? Hall

1871/1 HYPOTYPE Discina doria Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 26.
? Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 30, 31.
Hamilton shales East shore of Seneca lake, N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

Orbiculoidea lodensis Vanuxem (sp.)

1872/1 HYPOTYPE Orbicula lodensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 168.
Discina lodensis Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 35.
Genesee shale Ogdens ferry, Cayuga lake, N. Y.

1872/2 HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 21.
Genesee shale Lodi N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Orbiculoidea manhattanensis Meek & Hayden (sp.)

1632 $\frac{7873}{1}$ HYPOTYPE Discina manhattanensis Meek & Hayden. Proceedings of the Academy of natural sciences of Philadelphia. 1859. p. 25.

Orbiculoidea manhattanensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 20.

Coal measures — Riley county, Kan.

Orbiculoidea marginalis Whitfield (sp.)

1633 $\frac{7874}{1}$ HYPOPLASTOTYPE Discina marginalis Whitfield. Annual report of the geological survey of Wisconsin. 1880. p. 70.

Orbiculoidea marginalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 17.

Hamilton beds — Cementville Wis.

Orbiculoidea media Hall

1634 $\frac{7875}{1}$ TYPE Discina media Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 27.

Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 25.

Orbiculoidea media Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 15.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

1635 $\frac{7875}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 26.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 16.

Hamilton beds — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Orbiculoidea media *var.* Hall

1636 $\frac{7876}{1}$ TYPE Discina (sp.?) Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 28.

Discina media var. Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 29.

Marcellus shale — Bridgewater, Oneida co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Orbiculoidea neglecta Hall

7877/1 TYPE Discina neglecta Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 29.

Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 12.

Ithaca beds — Inclined plane, Ithaca N. Y.

7877/2 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 13.

Ithaca beds — Inclined plane, Ithaca N. Y.

Orbiculoidea newberryi Hall

7878/1 HYPOTYPE Discina newberryi Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 30.

Orbiculoidea newberryi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 18.

Waverly beds — Cuyahoga Falls O.

Orbiculoidea numulus Hall & Clarke

7879/1 TYPE Orbiculoidea numulus Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 14.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 11.

Manlius horizon — Marshall N. Y.

Orbiculoidea pulchra Hall & Clarke

7890/1 PLASTOTYPE Orbiculoidea pulchra Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 8.

Cuyahoga shale — Berea O.

7890/2 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 9.

Cuyahoga shale — Berea O.

7890/3 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 13.

Cuyahoga shale — Berea O.

Orbiculoidea *cf.* pulchra Hall & Clarke

7891/1 HYPOTYPE: HYPOPLASTOTYPE Orbiculoidea cf. pulchra Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 14.

Waverly beds — Meadville Pa.

1645 $\frac{1891}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 15.
Waverly beds Meadville Pa.

1646 $\frac{1891}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 16.
Waverly beds Meadville Pa.

Orbiculoidea randalli Hall

1647 $\frac{1892}{1}$ TYPE Discina randalli Hall. 16th annual report New York state cabinet of natural history. 1863. p. 25.
Hall. Paleontology of New York. 1867. v. 4, pl. 2, fig. 34.
Orbiculoidea randalli Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 18.
Hamilton beds Near Schoharie N. Y.

Orbiculoidea (Schizotreta) ovalis Hall & Clarke

1648 $\frac{1893}{1}$ TYPE Orbiculoidea (Schizotreta) ovalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 177, pl. 4E, fig. 4, 5.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 12, 13.
Trenton limestone Middleville N. Y.

Orbiculoidea (Schizotreta?) tenuilamellata Hall

1649 $\frac{1894}{1}$ HYPOTYPE Orbicula tenuilamellata Hall. Paleontology of New York. 1852. 2:250.
Orbiculoidea (Schizotreta?) tenuilamellata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig 2.
Niagaran Hamilton Ont.
C. D. Walcott, coll. 1878

1650 $\frac{1894}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4F, fig. 3.
Niagaran Hamilton Ont.
C. D. Walcott, coll. 1878

Orbiculoidea tullia Hall

1651 $\frac{1895}{1}$ TYPE Discina tullia Hall. 16th annual report the New York state cabinet of natural history. 1863. p. 2[illegible]
Hall. Paleontology of New York. 1867. v. 4, pl. [illegible] fig. 16, 17.
Tully limestone Ovid, Seneca co. N.

[illegible]

Orthis saffordi Hall & Clarke

[illegible] **saffordi**. Hall & Clarke. Paleo[illegible]
[illegible] 1892. v. 8, pt 1, p. 340, pl. 5[illegible]
[illegible] 1[illegible] annual report of the New [illegible]
[illegible] 1892, pl. 4, fig. 10 12.

[illegible] Knoxville, Te[illegible]
James M. Safford, d[illegible]

Orthis semele *see* Rhipidomella semele
Orthis stonensis *see* Dalmanella stonensis
Orthis subumbona *see* Spirifer subumbonus
Orthis thremei *see* Rhipidomella sp.
Orthis tioga *see* Schizophoria tioga
Orthis umbonata *see* Ambocoelia umbonata
Orthis vanuxemi *see* Rhipidomella vanuxemi
Orthisina arctostriata *see* Orthothetes d[illegible]
[illegible] arctostriata

ORTHOTHETES Fischer de Waldheim

Orthothetes decatheusis Clarke

[illegible] **Orthothetes decatheusis** Clarke, [illegible]
[illegible] New York [illegible] memoir [illegible]
[illegible]
[illegible] [illegible] Museum, Boise[illegible]

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 17.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 18.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 20.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 21.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

10 TYPE Clarke. New York state museum memoir 3. 1900. pl. 7, fig. 27.
Oriskanian Becraft mountain, Hudson N. Y.

Orthothetes bellulus Clarke

1 TYPE Orthothetes bellulus Clarke. 13th annual report of the New York state geologist. 1894. 1:176, pl. 4, fig. 2, 3.
Marcellus shales Livonia salt shaft, Livingston county, N. Y.

1 TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 4.
Marcellus shales Livonia salt shaft, Livingston county, N. Y.

Orthothetes chemungensis Conrad (sp.)

1672 $\frac{7932}{1}$ HYPOTYPE Strophomena chemungensis Conrad. Journal of the academy of natural sciences of Philadelphia. 1839. 8: 257.

Streptorhynchus chemungensis Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 1.

Chemung beds — Leon, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1673 $\frac{7932}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 8.

Chemung beds — Cattaraugus county, N. Y. C. Van Deloo, coll. 1863

1674 $\frac{7932}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 10.

Chemung beds — Randolph N. Y.

1675 $\frac{7932}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 18.

Chemung beds — Olean, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1676 $\frac{7932}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 19.

Chemung beds — East Randolph, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1677 $\frac{7932}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 20.

Chemung beds — Cherry Creek, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1678 $\frac{7932}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 21.

Chemung beds — New Albion, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

1679 $\frac{7932}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 22.

Chemung beds — Nichols, Tioga co. N. Y.

1680 $\frac{7932}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 10, fig. 23.

Chemung beds — Cattaraugus county, N. Y. C. Van Deloo, coll. 1863

1681 $\frac{7932}{10}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1892. v. 8, pt 1, pl. 11A, fig. 14.

Chemung beds — Corning, Steuben co. N. Y. A. Sherwood, coll. 187

Orthothetes chemungensis *var.* **arctostriatus** Hall

9331 HYPOTYPE Strophomena arctostriata Hall. Geology of New York; report on 4th district. 1843. p. 266.

Streptorhynchus chemungensis var. arctostriata Hall. Paleontology of New York. 1867. v. 4, pl. 9, fig. 1.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9332 HYPOTYPE Orthisina arctostriata Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 81, fig. 2.

Hall. Paleontology of New York. 1867. v. 4, pl 9, fig. 2.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

9333 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 9, fig. 7.

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1864

9334 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 9, fig. 11.

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Orthothetes hydraulicus Whitfield (sp.)

9341 HYPOTYPE: HYPOPLASTOTYPE Streptorhynchus hydraulicum Whitfield. Annals of the New York academy of sciences. 1882. 2: 193.

Orthothetes hydraulicus Grabau. Geological society of America bulletin. 1900. v. 11, pl. 22, fig. 1a, 1b.

Manlius limestone — Erie county, N. Y.
A. W. Grabau, coll.

9342 HYPOTYPE: HYPOPLASTOTYPE Grabau. Geological society of America bulletin. 1900. v. 11, pl. 22, fig. 1c.

Manlius limestone — Erie county, N. Y.
A. W. Grabau, coll.

Orthothetes pandora Billings (sp.)

1688 $\frac{7935}{1}$ HYPOTYPE Streptorhynchus pandora Billings. Canadian journal. 1860. 5: 226.

Streptorhynchus chemungensis var. pandora Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 11.

Schoharie grit — Knox, Albany co. N. Y. C. Van Deloo, coll. 1862

1689 $\frac{7935}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 12.

Schoharie grit — Clarksville, Albany co. N. Y. R. P. Whitfield and C. Van Deloo, coll. 1861

1690 $\frac{7935}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 13.

Schoharie grit — Knox, Albany co. N. Y. C. Van Deloo, coll. 1862

1691 $\frac{7935}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 10, fig. 2.

Schoharie grit — Near Clarksville, Albany co. N. Y. C. Van Deloo, coll. 1862

1692 $\frac{7935}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 15.

Schoharie grit — Clarksville, Albany co. N. Y. C. Van Deloo, coll. 1862

On slab with type of Pholidops areolata Hall. Pal. N. Y. v. 4, pl. 3, fig. 4.

1693 $\frac{7935}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 16.

Schoharie grit — Knox, Albany co. N. Y. C. Van Deloo, coll. 1862

1694 $\frac{7935}{7}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 17.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 10, fig. 5.

Schoharie grit — Clarksville, Albany co. N. Y. R. P. Whitfield and C. Van Deloo, coll. 1861

1695 $\frac{7935}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 18.

Schoharie grit — Schoharie N. Y. C. Van Deloo, coll. 1862

PARAZYGA Hall & Clarke

Parazyga deweyi Hall

1710 $\frac{7960}{1}$ HYPOTYPE Waldheimia deweyi Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 89.

Parazyga deweyi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 43, 44.

Helderbergian — The Helderberg, N. Y.

1711 $\frac{7960}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 45.

Helderbergian — The Helderberg, N. Y.

1712 $\frac{7960}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 46.

Helderbergian — The Helderberg, N. Y.

Parazyga hirsuta Hall

1713 $\frac{7961}{1}$ HYPOTYPE Atrypa hirsuta Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 168.

Trematospira hirsuta Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 21, 22.

Hamilton shales — Darien Center, Genesee co. N. Y. C. A. White, coll. 1860

1714 $\frac{7961}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 23–27.

Parazyga hirsuta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 28–32.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y. C. A. White, coll. 1860

1715 $\frac{7961}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 36.

Hamilton shales — Canandaigua lake, N. Y.

1716 $\frac{7961}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 37.

Hamilton shales — Canandaigua lake, N. Y.

1717 $\frac{7961}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 39.

Hamilton shales — Canandaigua lake, N. Y.

Streptorhynchus subplanum Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 14, 14a.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1704 $\frac{7937}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 16, 18.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1705 $\frac{7937}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 17, 20.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1706 $\frac{7937}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 2, fig. 19.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

1707 $\frac{7937}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 13 growth stages).

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Orthothetes woolworthanus Hall

1708 $\frac{7939}{1}$ HYPOTYPE Strophomena woolworthana Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 48.

Streptorhynchus woolworthana Hall. 2d annual report of the New York state geologist. 1883. pl. 39, fig. 29.

Orthothetes woolworthana Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 9, fig. 29.

Helderbergian — Schoharie county, N. Y.

J. Gebhard purchase

PARASTROPHIA Hall & Clarke

Parastrophia hemiplicata Hall

1709 $\frac{7950}{1}$ HYPOTYPE Atrypa hemiplicata Hall. Paleontology of New York. 1847. 1 : 144.

Parastrophia hemiplicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 63, fig. 2.

Trenton limestone — Jacksonburg N. Y.

PARAZYGA Hall & Clarke

Parazyga deweyi Hall

7960/1 HYPOTYPE Waldheimia deweyi Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 89.

Parazyga deweyi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 43, 44.

Helderbergian — The Helderberg, N. Y.

7960/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 45.

Helderbergian — The Helderberg, N. Y.

7960/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 46.

Helderbergian — The Helderberg, N. Y.

Parazyga hirsuta Hall

7961/1 HYPOTYPE Atrypa hirsuta Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 168.

Trematospira hirsuta Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 21, 22.

Hamilton shales — Darien Center, Genesee co. N. Y. C. A. White, coll. 1860

7961/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 23–27.

Parazyga hirsuta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 28–32.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y. C. A. White, coll. 1860

7961/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 36.

Hamilton shales — Canandaigua lake, N. Y.

7961/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 37.

Hamilton shales — Canandaigua lake, N. Y.

7961/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 39.

Hamilton shales — Canandaigua lake, N. Y.

PATERULA Barrande

Paterula (?) sp. *see* Paterula amii

Paterula amii Schuchert

1718 $\frac{7970}{1}$ PLASTOTYPE Paterula (?) sp. Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4K, fig. 1.

Paterula amii Schuchert. United States geological survey bulletin 87. 1897. p. 301.

Calciferous ? beds South of St John's Market, Quebec

1719 $\frac{7970}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 2.

Trenton (Normans kill) shale Mount Moreno, Columbia co. N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

PENTAGONIA Cozzens

Pentagonia unisulcata Conrad (sp.)

1720 $\frac{7980}{1}$ HYPOTYPE Atrypa unisulcata Conrad. 5th annual report of the New York geological survey. 1841. p. 56.

Meristella (Pentagonia) unisulcata Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 24.

Onondaga limestone Babcock hill, Oneida co. N. Y.

1721 $\frac{7980}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 27, 28.

Hamilton shales Centerfield N. Y.

1722 $\frac{7980}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 42, fig. 29.

Hamilton group Centerfield N. Y.

Pentagonia unisulcata *var.* **biplicata** Hall

1723 $\frac{7981}{1}$ TYPE Meristella ? unisulcata Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 2, fig. 18.

Meristella (Pentagonia) unisulcata var. biplicata Hall. Paleontology of New York. 1867. v. 4, pl. 50, fig. 35.

Pentagonia unisulcata var. biplicata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, fig. 31.

York, Livingston co. N.

C. A. White, coll. 1

PENTAMERELLA Hall

Pentamerella arata Conrad (sp.)

7920/1 HYPOTYPE Atrypa arata Conrad. 5th annual report of the New York geological survey. 1841. p. 55.

Pentamerella arata Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 10.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

Pentamerella papilionensis *see* Pentamerella pavilionensis

Pentamerella pavilionensis Hall

7921/1 TYPE Pentamerus papilionensis Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 86.

Pentamerella papilionensis Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 28.

Hamilton shales — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

7921/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 30.

Hamilton shales — West Bloomfield N. Y.
C. A. White and C. Van Deloo, coll. 1860

7921/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 58, fig. 35.

Pentamerella pavilionensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 71, fig. 31.

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

PENTAMERUS Sowerby

Pentamerus elongatus *see* Amphigenia elongata

Pentamerus fornicatus *see* Barrandella fornicata

Pentamerus fornicatus var. *see* Barrandella fornicata *var.*

Pentamerus galeatus *see* Sieberella galeata

Pentamerus multicostatus *see* Conchidium multicostatum

Pentamerus oblongus Sowerby

1728 $\frac{8000}{1}$ HYPOTYPE Pentamerus oblongus Sowerby. Murchison's Silurian system. 1839. p. 641.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 70, fig. 2.
Clinton beds — Rochester N. Y.
Pickett collection

1729 $\frac{8000}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 70, fig. 4.
Clinton beds — Rochester N. Y.

1730 $\frac{8000}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 169.
Clinton beds — Rochester N. Y.
Pickett collection

1731 $\frac{8000}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 170.
Clinton beds — Rochester N. Y.
Pickett collection

1732 $\frac{8000}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 238, fig. 171.
Clinton beds — Rochester N. Y.
Pickett collection

Pentamerus papilionensis *see* Pentamerella pavilionensis

Pentamerus verneuili *see* Anastrophia verneuili

PHOLIDOPS Hall

Pholidops sp.?

1733 $\frac{8010}{1}$ TYPE: PLASTOTYPE Pholidops sp.? Clarke. New York state museum memoir 3. 1900. p. 59, pl. 8, fig. 21.
Oriskanian — Becraft mountain, Hudson N. Y.

1734 $\frac{8010}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 22.
Oriskanian — Becraft mountain, Hudson N. Y.

Pholidops areolata Hall

1735 $\frac{8011}{1}$ TYPE Pholidops areolata Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 31.
Hall. Paleontology of New York. 1867. v. 4, pl.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 26.

Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

On slab with type of Orthothetes pandora Hall. Pal. N. Y. v. 4, pl. 4, fig. 15.

011/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 5.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 25.

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

On slab with type of Stropheodonta callosa Hall. Pal. N. Y. v. 4, pl. 11, fig. 6.

Pholidops hamiltoniae Hall

012/1 PLASTOTYPE Pholidops hamiltoniae Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 92.

Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 8.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 34.

Hamilton shales — Canandaigua lake, N. Y.

Pholidops? lamellosa Hall

013/1 TYPE Pholidops? lamellosa Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 11.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Pholidops oblata Hall

014/1 TYPE Pholidops oblata Hall. Paleontology of New York. 1867. v. 4, pl. 3, fig. 10.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 41, fig. 36.

Hamilton shales — Carter's mills, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

Pholidops ovata Hall

015/1 TYPE Pholidops ovatus Hall. Paleontology of New York. 1859. 3:490, pl. 103B, fig. 7a, 7b.

Helderbergian — Near Clarksville N. Y.

1741 [illegible] HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8. pt 1. pl. 41. fig. 23.
Helderbergian — Near Carlisle N.Y.

Pholidops patina Hall & Clarke

1742 [illegible] PLASTOTYPE Pholidops patina Hall & Clarke. Paleontology of New York. 1892. v. 8. pt 1. pl. 41, fig. 28.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 3. fig. 19.
Onondaga limestone — De Cewsville Ont.

Pholidops squamiformis Hall

1743 [illegible] HYPOPLASTOTYPE Orbicula? squamiformis Hall. Geology of New York; report on the 4th district. 1843. p. 108.
Pholidops squamiformis Hall & Clarke. Paleontology of New York. 1892. v. 8. pt 1, pl. 41, fig. 21.
Niagaran — Hamilton Ont.

Pholidops terminalis Hall

1744 [illegible] HYPOTYPE: HYPOPLASTOTYPE Pholidops terminalis Hall. Paleontology of New York. 1859. 3:490.
Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 23.
Oriskanian — Becraft mountain, Hudson N.Y.

1745 [illegible] HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 24.
Oriskanian — Becraft mountain, Hudson N.Y.

1746 [illegible] HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 25.
Oriskanian — Becraft mountain, Hudson N.Y.

PHOLIDOSTROPHIA Hall & Clarke

Pholidostrophia nacrea Hall

1747 [illegible] TYPE Strophomena (Strophodonta) nacrea Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 144.
Strophodonta nacrea Hall. Paleontology of New York. 1867. v. 4, pl. 18, fig. 1a, 1f.
Hamilton shales — Eighteen Mile creek, Erie co. N.Y.
C. A. White and C. Van Deloo, coll. 1864

PLATYSTROPHIA King

Platystrophia biforata Schlotheim (sp.)

3039/1 HYPOTYPE Terebratulites biforatus Schlotheim. Petrefactenkunde. 1820. p. 265.

Platystrophia biforata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 5B, fig. 10.

Trenton limestone — Trenton Falls N. Y. Rust collection

PLECTAMBONITES Pander

Plectambonites productus Hall & Clarke

5040/1 TYPE Plectambonites producta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 360, pl. 84, fig. 23–25.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 6, fig. 11, 12.

Niagaran — Yellow Springs O.

PLETHORHYNCHA Hall & Clarke

Plethorhyncha barrandii Hall

8050/1 TYPE Rhynchonella barrandi Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 82.

Hall. Paleontology of New York. 1859. v. 3, pl. 103, fig. 3.

Oriskanian — Schoharie county, N. Y.

8050/2 TYPE Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 83, fig. 1, 3; p. 84, fig. 4.

Hall. Paleontology of New York. 1859. v. 3, pl. 103, fig. 5–7.

Oriskanian — Schoharie N. Y.

POLYTOECHIA Hall & Clarke

Polytoechia apicalis Whitfield (sp.)

8060/1 HYPOTYPE Hemipronites apicalis Whitfield. American museum of natural history bulletin. 1886. v. 1, no. 8, p. 300.

Polytoechia apicalis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 26.

Beekmantown limestone (Fort Cassin beds) — Fort Cassin Vt.

1753 $\frac{8080}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 27.
Beekmantown limestone (Fort Cassin beds) Fort Cassin Vt.

1754 $\frac{8080}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 239, fig. 11.
Beekmantown limestone (Fort Cassin beds) Fort Cassin Vt.

PORAMBONITES Pander

Porambonites gigas Schmidt

1755 $\frac{8070}{1}$ HYPOTYPE Porambonites gigas Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 63, fig. 44.
Lower Siluric (Lykholmer-Schichten) Esthland, Russia

PRODUCTELLA Hall

Productella arctirostrata Hall

1756 $\frac{8080}{1}$ TYPE Productus arctirostratus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 177.
Productella arctirostrata Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 18.
Chemung beds Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Productella bialveata Hall

1757 $\frac{8081}{1}$ TYPE Productella bialveata Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 24.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

1758 $\frac{8081}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 25.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

1759 $\frac{8081}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 26.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

1760 $\frac{8081}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 27.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

8081/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 28.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

Productella costatula Hall

8082/1 TYPE Productella costatula Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 9.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 35.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 35.

Chemung beds East Randolph, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 26, fig. 10.

8082/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 10.

Chemung beds East Randolph N. Y.

C. Van Deloo, coll. 1863

On slab with type of v. 4, pl. 26, fig. 9.

8082/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 11, 12.

Chemung beds Chemung county, N. Y,

8082/4 TYPE Hall. Paleontology of New York. 1867. v. 4. pl. 26, fig. 13–15.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 18–20.

Hall & Clarke. Paleontology of New York. 1892, v. 8, pt 1, pl. 17, fig. 18–20.

Chemung beds Chemung county, N. Y.

Productella dumosa Hall

8083/1 TYPE Productus dumosus Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 99.

Productella dumosa Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 40.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 21.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 21.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Productella hallana Walcott

1767 HYPOTYPE Productus dissimilis Hall. C survey of Iowa. 1858. v. 1, pt 2, p. 497.

Productus (Productella) hallanus Monograph of the United States geological surve 8: 130.

Productus (Marginifera??) dis Hall (=Productella hallana Walcott) Clarke. Paleontology of New York. 1892. pl. 17A, fig. 11.

Upper Devonic Lime

Productella hirsuta *var.* **rectispina** Hall

1768 TYPE Productella hirsuta var. rec Hall. Paleontology of New York. 1867. v. pl. 24, fig. 30.

Chemung beds Me

C. Van Deloo,

Productella hystricula *see* Stropha tricula

Productella lachrymosa Conrad (sp.)

1769 HYPOTYPE Strophomena lachrymosa Journal of the Academy of natural sciences of Ph 1839. 8: 256.

Productella lachrymosa Hall. Pa of New York. 1867. v. 4, pl. 25, fig. 23.

Chemung beds Ellington, Chautauqua

C. Van Deloo,

1770 HYPOTYPE Hall. Paleontology of New Yor v. 4, pl. 25, fig. 24.

Chemung beds Cold Spring, Cattaraugus

C. Van Deloo,

1771 HYPOTYPE Hall. Paleontology of New Yor v. 4, pl. 25, fig. 26.

Chemung beds Cherry Creek, Chautauqua

C. Van Deloo,

1772 HYPOTYPE Hall. Paleontology of New Yor v. 4, pl. 25, fig. 27.

Chemung beds Randolph, Cattaraugus

C. Van Deloo,

8086/8 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 28.
Chemung beds Ellington N. Y.
C. Van Deloo, coll. 1863

Productella lachrymosa *var.* lima Hall

8087/1 TYPE Productella lachrymosa var. lima Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 29, 30.
Chemung beds Chautauqua county, N. Y.
C. Van Deloo, coll. 1863

8087/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 31.
Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 22.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 22.
Chemung beds Ellington, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

8087/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 32.
Chemung beds Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

Productella lachrymosa *var.* stigmata Hall

8088/1 TYPE Productella lachrymosa var. stigmata Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 34, 35.
Chemung beds Chautauqua county, N. Y.
C. Van Deloo, coll. 1863

8088/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 36.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8088/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 37, 38.
Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8088/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 39.
Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1781 $\frac{8088}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 40, 41.

Chemung beds — Randolph N. Y.
C. Van Deloo, coll. 1863

Productella navicella Hall

1782 $\frac{8089}{1}$ TYPE Productus navicella Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 172.

Productella navicella Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 1, 3.

Onondaga limestone — Schoharie county, N. Y.

Productella onusta Hall

1783 $\frac{8090}{1}$ TYPE Productella onusta Hall. Paleontology of New York. 1867. 4:184, pl. 26, fig. 31.

Chemung beds — New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1784 $\frac{8090}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 36–38.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 41.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 41.

Chemung beds — New Albion N. Y.
C. Van Deloo, coll. 1863

1785 $\frac{8090}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 39.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 43.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 43.

Chemung beds — Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1786 $\frac{8090}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 40.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 42.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 42.

Chemung beds — Conewango N. Y.
C. Van Deloo, coll. 1863

8080/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 41.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 46.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 46.

Chemung beds — Conewango N. Y.
C. Van Deloo, coll. 1863

8080/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 42.

Chemung beds — New Albion N. Y.
C. Van Deloo, coll. 1863

Productella papulata Hall

8091/1 TYPE Productus (Productella) papulata Hall. Paleontology of New York. 1867. v. 4 (corrigenda), pl. 23, fig. 47, 48.

Hamilton shales — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1863

Productella speciosa Hall

8092/1 TYPE Productus speciosus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 176.

Productella speciosa Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 1.

Chemung beds — Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8092/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 4.

Chemung beds — New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8092/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 5.

Chemung beds — Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

8092/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 25, fig. 8.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 25, 26.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 25, 26.

Chemung beds — Cattaraugus county, N. Y.
C. Van Deloo, coll. 1863

Productella spinulicosta Hall

1794 $\frac{8093}{1}$ TYPE Productus spinulicostae Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 173.

Productella spinulicosta Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 28–30.

Hamilton beds — Delphi Onondaga co. N. Y.
G. B. Simpson, coll. 1863

1795 $\frac{8093}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig 31.

Hamilton beds — Delphi N. Y.
G. B. Simpson, coll. 1863

1796 $\frac{8093}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 32, 33.

Hamilton shales — Near Leroy, Genesee co. N. Y.

1797 $\frac{8093}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 34.

Hamilton shales — Apulia, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

Productella truncata *see* Strophalosia truncata

Productella tullia Hall

1798 $\frac{8094}{1}$ TYPE Productella tullia Hall. Paleontology of New York. 1867. 4:164, pl. 23, fig. 42.

Hamilton beds — Delphi N. Y.
G. B. Simpson, coll. 1863

1799 $\frac{8094}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 43.

Tully limestone — Ovid, Seneca co. N. Y.

PRODUCTUS Sowerby

Productus? sp.?

1800 $\frac{8110}{1}$ TYPE Productus? sp.? Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 18, fig. 5.

Chemung beds — Cattaraugus county, N. Y.
Pickett collection

Productus arctirostratus *see* Productella arctirostrata

[illegible] dissimilis *see* Productella hallana

[illegible]rginifera??) dissimilis *see*

Productus dumosus *see* Productella dumosa

Productus (Productella) hallanus *see* Productella hallana

Productus navicella *see* Productella navicella

Productus (Productella) papulata *see* Productella papulata

Productus semireticulatus Martin (sp.)

8111/1 HYPOPLASTOTYPE Anomites semireticulatus Martin. Petrefacta Derbiensia. 1809. p. 7.

Productus semireticulatus Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17A, fig. 18.

Coal measures — Newcastle O.

Productus speciosus *see* Productella speciosa

Productus spinulicosta *see* Productella spinulicosta

Productus truncatus *see* Strophalosia truncata

PTYCHOSPIRA Hall & Clarke

Ptychospira ferita von Buch (sp.)

8120/1 HYPOTYPE Terebratula ferita von Buch. Ueber Terebrateln. 1834. p. 76.

Ptychospira ferita Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 113, fig. 102.

Middle Devonic — Eifel, Germany

Ptychospira longirostris Kayser (sp.)

8121/1 HYPOTYPE Retzia longirostris Kayser. Zeitsch. d. deutsch geolog. Gesellsch. 1871. 23: 557.

Ptychospira longirostris Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 12.

Middle Devonic — Eifel, Germany

PUGNAX Hall & Clarke

Pugnax mutatus Hall

8130/1 HYPOTYPE Rhynchonella mutata Hall. Transactions of the Albany institute. 1858. 4: 10.

Pugnax mutatus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 20.

St Louis group — Spergen hill, Ind.

8130/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 21.

St Louis group — Spergen hill, Ind.

Pugnax ottumwa White (sp.)

1806 $\frac{81}{1}31$ HYPOTYPE Rhynchonella ottumwa White. Proceedings of the Boston society of natural history. 1862. 9:23.

Pugnax ottumwa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 25.

St Louis group — Pella Ia.

1807 $\frac{81}{2}31$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 60, fig. 26.

St Louis group — Pella Ia.

RAFINESQUINA Hall & Clarke

Rafinesquina alternata Conrad (sp.)

1808 $\frac{81}{1}40$ HYPOTYPE Leptaena alternata Conrad. 2d annual report of the New York geological survey. 1838. p. 115.

Rafinesquina alternata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 17.

Lorraine shales. Erratic block in western New York — J. M. Clarke, coll.

1809 $\frac{81}{2}40$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 18.

Lorraine shales — Erratic block in western New York — J. M. Clarke, coll.

Rafinesquina fasciata Hall

1810 $\frac{81}{1}41$ TYPE Leptaena fasciata Hall. Paleontology of New York. 1847. 1:20, pl. 4 bis, fig. 3a.

Chazy limestone — Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3b, 3c.

1811 $\frac{81}{2}41$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 3b.

Chazy limestone — Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3a, 3c.

1812 $\frac{81}{3}41$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 3c.

Chazy limestone — Chazy N. Y.

On slab with types of pl. 4 bis, fig. 2a, 2b, 2c, 3a, 3b.

Rafinesquina incrassata Hall

eptaena incrassata Hall. Paleontology ork. 1847. 1:19, pl. 4 bis, fig. 2a.

mestone — Chazy N. Y.

types of pl. 4 bis, fig. 2b, 2c, 3a, 3b, 3c.

8142/2 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 2b.
Chazy limestone Chazy N. Y.
On slab with types of pl. 4 bis, fig. 2a, 2c, 3a–3c.

8142/3 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 4 bis, fig. 2c.
Chazy limestone Chazy N. Y.
On slab with types of pl. 4 bis, fig. 2a, 2b, 3a–3c.

RENSSELAERIA Hall

Rensselaeria? johanni *see* Newberria johannis

Rensselaeria ovoides Eaton (sp.)

8150/1 HYPOTYPE Terebratula ovoides Eaton. Geological textbook. 1832. p. 45.
Rensselaeria ovoides Hall. Paleontology of New York. 1859. v. 3, pl. 104, fig. 3b.
Oriskanian Schoharie county, N. Y.
Albany institute, donor

8150/2 HYPOTYPE Hall. Paleontology of New York. 1894. v. 8, pt 2, pl. 75, fig. 5.
Oriskanian Schoharie N. Y.

8150/3 HYPOTYPE Hall. Paleontology of New York. 1894. v. 8, pt 2, pl. 76, fig. 18.
Oriskanian South Walpole Ont.
C. D. Walcott, coll. 1878

8150/4 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 17, 18.
Oriskanian Becraft mountain, Hudson N. Y.

8150/5 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 5, fig. 19.
Oriskanian Becraft mountain, Hudson N. Y.

RETZIA King

Retzia adrieni de Verneuil (sp.)

8160/1 HYPOTYPE Terebratula adrieni de Verneuil. Bul. soc. geol. France. 1845. 11:471.
Retzia adrieni Hall & Clarke. Paleontology of New York. v. 8, pt 2, pl. 50, fig. 6.
Lower Devonic Departement de la Sarthe, France

8160/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 8.
Lower Devonic Departement de la Sarthe, France

Retzia evax *see* Homoeospira evax

Retzia longirostris *see* Ptychospira longirostris

Retzia sobrina *see* Homoeospira sobrina

Retzia vera var. costata *see* Eumetria vera *var.* costata

Retzia verneuiliana *see* Eumetria verneuiliana

RHINOBOLUS Hall

Rhinobolus davidsoni Hall & Clarke

1823 $\frac{81}{1}\frac{70}{}$ PLASTOTYPE Rhinobolus davidsoni Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 176, pl. 4B, fig. 10.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 8.

Niagaran Grafton Wis.

1824 $\frac{81}{2}\frac{70}{}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 11.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 6.

Niagaran Grafton Wis.

1825 $\frac{81}{3}\frac{70}{}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 12.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 7.

Niagaran Grafton Wis.

Rhinobolus galtensis Billings

1826 $\frac{81}{1}\frac{71}{}$ HYPOPLASTOTYPE Obolus galtensis Billings. Paleozoic fossils. 1862. 1: 168.

Rhinobolus galtensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 7.

Guelph limestone Galt Ont.

1827 $\frac{81}{2}\frac{71}{}$ HYPOTYPE: HYPOPLASTOTYPE Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 8.

Guelph limestone Elora Ont.

RHIPIDOMELLA Oehlert

Rhipidomella sp.

1828 $\frac{81}{1}\frac{80}{}$ HYPOTYPE Orthis thiemei White? Hall. Paleontology of New York. 1867. 4:63, pl. 8, fig. 2.

Chemung beds Between Napoli and Conewango N. Y

C. Van Deloo, coll. 186

Rhipidomella alsa Hall

8181/1 TYPE: PLASTOTYPE Orthis alsus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 33.

Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 2.

Schoharie grit — Albany county, N. Y.

8181/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 3.

Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

8181/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 4.

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

8181/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 5.

Schoharie grit — Albany county, N. Y.

8181/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 6.

Schoharie grit — Albany county, N. Y.
C. Van Deloo, coll. 1862

8181/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 7.

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

Rhipidomella cleobis Hall

8182/1 TYPE Orthis cleobis Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 35.

Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 9.

Onondaga limestone — Clarence, Erie co. N. Y.

Rhipidomella hybrida Sowerby (sp.)

8183/1 HYPOTYPE Orthis hybrida Sowerby. Murchison's Silurian system. 1839. p. 630.

Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 13, 13a.

Niagaran — Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1837 $\frac{81}{2}\frac{83}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 14, 14a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1838 $\frac{81}{3}\frac{83}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 15, 15a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1839 $\frac{81}{4}\frac{83}{}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 1, fig. 18, 18a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Rhipidomella leucosia Hall

1840 $\frac{81}{1}\frac{84}{}$ TYPE Orthis leucosia Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 80.
Hall. Paleontology of New York. 1867. v. 4, pl. 7, fig. 4c–4f.
Hamilton shales Canandaigua lake, N. Y.

Rhipidomella livia Billings (sp.)

1841 $\frac{81}{1}\frac{85}{}$ HYPOTYPE Orthis livia Billings. Canadian journal new ser. 1860. 5: 267.
Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 4a–4c.
Onondaga limestone Erie county, N. Y.

Rhipidomella oblata Hall

1842 $\frac{81}{1}\frac{86}{}$ HYPOTYPE Orthis oblata Hall. 10th annual report of the New York state cabinet of natural history. 1857, p. 41.
Rhipidomella oblata Clarke. New York state museum memoir 3. 1900. pl. 8, fig. 14, 15.
Oriskanian Becraft mountain, Hudson N. Y.

Rhipidomella penelope Hall

1843 $\frac{81}{1}\frac{87}{}$ HYPOTYPE Orthis penelope Hall. 13th annual report of the New York state cabinet of natural history. 1860, p. 70.

lla penelope Hall & Clarke. Pal
v. 8, pt 1, pl. 6A, fig. 1
Canandaigua lake, N.

Rhipidomella peloris Hall

81/1 TYPE: PLASTOTYPE Orthis peloris Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 32.

Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 1.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

81/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 8.

Schoharie grit — Near Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

81/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 9.

Rhipidomella peloris Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 6A, fig. 6,

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

81/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 4, fig. 10.

Schoharie grit — Knox N. Y.
C. Van Deloo, coll. 1862

Rhipidomella semele Hall.

81/89 1 TYPE Orthis semele Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 34.

Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 7.

Onondaga limestone — Clarence, Erie co. N. Y.

81/89 2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 5, fig. 8.

Onondaga limestone — Clarence N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

Rhipidomella vanuxemi Hall

81/90 1 HYPOTYPE Orthis vanuxemi Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 135.

Hall. Paleontology of New York. 1867. v. 4, pl. 6, fig. 30.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

1851 $\frac{8100}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 6A, fig. 8.

From drift of Hamilton group Near Elmira N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

RHYNCHONELLA Fischer de Waldheim

Rhynchonella — ?

1852 $\frac{8200}{1}$ TYPE Atrypa sp. Paleontology of New York. 1852. 2: 330, pl. 74, fig. 12.

Coralline (Cobleskill) limestone Schoharie N. Y.

Rhynchonella abrupta *see* Uncinulus abruptus

Rhynchonella acinus *see* Camarotoechia? acinus

Rhynchonella barrandi *see* Plethorhynchus barrandii

Rhynchonella boonensis *see* Liorhynchus? boonense

Rhynchonella (Stenocisma) congregata *see* Camarotoechia congregata

Rhynchonella (Stenocisma) contracta *see* Camarotoechia contracta

Rhynchonella (Stenocisma) dotis *see* Camarotoechia dotis

Rhynchonella (Stenocisma) duplicata *see* Camarotoechia (?) duplicata

Rhynchonella formosa *see* Stenochisma formosa

Rhynchonella glansfagea *see* Centronella glansfagea

Rhynchonella indianensis *see* Camarotoechia indianensis

Rhynchonella? laura *see* Liorhynchus laura

Rhynchonella mutabilis *see* Uncinulus mutabilis

Rhynchonella mutata *see* Pugnax mutatus

Rhynchonella neglecta *see* Camarotoechia (?) neglecta

Rhynchonella nobilis *see* Uncinulus nobilis

Rhynchonella nucleolata *see* Uncinulus nucleolata

Rhynchonella oblata *see* Camarotoechia oblata

Rhynchonella orbicularis *see* Camarotoechia orbicularis

Rhynchonella (Stenocisma) orbicularis *see* Camarotoechia orbicularis

Rhynchonella ottumwa *see* Pugnax ottumwa

Rhynchonella? reticulata *see* Eichwaldia reticulata

Rhynchonella (?) lamellata Hall

8201/1 TYPE Atrypa lamellata Hall. Paleontology of New York. 1852. 2: 329, pl. 74, fig. 11a, 11b.
Coralline (Cobleskill) limestone Schoharie N. Y.

Rhynchonella (?) robusta Hall

8202/1 TYPE Atrypa robusta Hall. Paleontology of New York. 1852. 2: 71, pl. 23, fig. 7a–7d.
Clinton beds Lockport N. Y.

Rhynchonella sappho *see* Camarotoechia sappho

Rhynchonella (Stenocisma) sappho *see* Camarotoechia sappho

Rhynchonella (?) semiplicata Conrad (sp.)

8203/1 HYPOTYPE Atrypa semiplicata Conrad. 5th annual report of the New York geological survey. 1841. p. 56.
Rhynchonella semiplicata Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1a.
Helderbergian Schoharie or Herkimer county, N. Y.

8203/2 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1b.
Helderbergian Schoharie or Herkimer county, N. Y.

8203/3 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1c.
Helderbergian Schoharie or Herkimer county, N. Y.

8203/4 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 29, fig. 1l.
Helderbergian Schoharie or Herkimer county, N. Y.

Rhynchonella (Stenocisma) stephani *see* Camarotoechia stevensi

Rhynchonella? tethys *see* Camarotoechia tethys

Rhynchonella (Stenocisma) tethys *see* Camarotoechia tethys

Rhynchonella ventricosa *see* Wilsonia ventricosa

Rhynchonella venustula *see* Hypothyris venustula

Rhynchonella whitii *see* Camarotoechia whitii

RHYNCHOSPIRA Hall

Rhynchospira evax *see* Homoeospira evax

Rhynchospira formosa Hall

1859 $\frac{8210}{1}$ HYPOTYPE Waldheimia formosa Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 88.

Rhynchospira formosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 50, fig. 24.

Helderbergian Clarksville N. Y.

1860 $\frac{8210}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 109, fig. 101.

Helderbergian Cumberland Tenn.

Rhynchospira lepida *see* Trigeria (?) lepida

Rhynchospira nobilis *see* Cyclorhina nobilis

Rhynchospira subglobosa Hall

1861 $\frac{8211}{1}$ TYPE Rhynchospira subglobosa Hall. Paleontology of New York. 1867. 4:421, pl. 63, fig. 23, 24.

Schoharie grit Schoharie N. Y.

C. Van Deloo, coll. 1862

RHYNCHOTRETA Hall

Rhynchotreta cuneata Dalman (sp.) *var.* **americana** Hall

1862 $\frac{8220}{1}$ HYPOTYPE Atrypa cuneata var. americana Hall. 28th annual report of the New York state cabinet of natural history. 1879. p. 167.

Rhynchotreta cuneata var. americana Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 13, 13a, 17, 17a.

Niagaran Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 18[illegible]

1863 $\frac{8220}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 4. fig. 18, 18a.

N Waldron I[illegible]
[illegible]co, coll.

4 8220/3 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 19, 19a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

5 8220/4 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 20, 20a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

6 8220/5 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 21, 21a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

7 8220/6 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 4, fig. 22, 22a.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 56, fig. 38.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

8 8220/7 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 8 (series of 20 growth stages).
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

ROEMERELLA Hall & Clarke

Roemerella grandis Vanuxem (sp.)

9 8230/1 TYPE Orbicula grandis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 152, fig. 4.
Discina grandis Hall. Paleontology of New York. 1867. v. 4, pl. 1, fig. 18b.
Roemerella grandis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4E, fig. 30.
Hamilton beds Cazenovia N. Y.
L. Vanuxem coll.

ROMINGERINA Hall & Clarke

Romingerina julia A. Winchell (sp.)

10 8240/1 HYPOTYPE Centronella julia A. Winchell. Proceedings of the Academy of natural sciences of Philadelphia. 1862. p. 405.
mingerina julia Hall & Clarke. Paleontology York. 1894. v. 8, pt 2, pl. 79, fig. 28.
ll group Pointe aux Barques Mich.

SCENIDIUM Hall

Scenidium halli Safford

1871 $\frac{8250}{1}$ HYPOTYPE Skenidium halli Safford. Geology of Tennessee. 1869. p. 287.
Scenidium halli Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 33.
Trenton limestone — Nashville Tenn.
James M. Safford, donor

1872 $\frac{8250}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 34.
Trenton limestone — Nashville Tenn.
James M. Safford, donor

1873 $\frac{8250}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 35.
Trenton limestone — Nashville Tenn.
James M. Safford, donor

1874 $\frac{8250}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 7A, fig. 36.
Trenton limestone — Nashville Tenn.
James M. Safford, donor

SCHIZAMBON Walcott

Schizambon (?) canadensis (Ami) Hall & Clarke

1875 $\frac{8260}{1}$ HYPOPLASTOTYPE Schizambon (?) canadensis (Ami) Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 32.
Utica shale — Near Gloucester Ont.

Schizambon typicalis Walcott

1876 $\frac{8261}{1}$ HYPOPLASTOTYPE Schizambon typicalis Walcott. United States geological survey monograph 8. 1884. p. 70.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 28.
Pogonip group — Eureka district, Nev.

1877 $\frac{8261}{2}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 29.
Pogonip group — Eureka district, Nev.

1878 $\frac{8261}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4, fig. 30.
Pogonip group — Eureka district, Nev.

SCHIZOCRANIA Hall & Whitfield

Schizocrania filosa Hall

8270/1 HYPOPLASTOTYPE Orbicula? filosa Hall. Paleontology of New York. 1847. 1 : 99.

Schizocrania filosa Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 26.

Cincinnatian Cincinnati O.

8270/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 30.

Trenton limestone Trenton Falls N. Y.

SCHIZOPHORIA King

Schizophoria iowensis Hall

8280/1 HYPOTYPE Orthis iowensis Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 488.

Schizophoria iowensis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 6A, fig. 29.

Middle Devonic Hackberry Grove, Ia.

Schizophoria multistriata Hall

8281/1 HYPOTYPE Orthis multistriata Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 45.

Hall. Paleontology of New York. 1859. v. 3, pl. 15, fig. 2g–2i.

Helderbergian Schoharie N. Y.

Schizophoria tioga Hall

8282/1 HYPOTYPE Orthis interlineata Hall. Geology of New York; report on the 4th district. 1843. p. 267.

Orthis tioga Hall. Paleontology of New York. 1867. v. 4, pl. 8, fig. 23.

Chemung beds Between Napoli and Conewango N. Y.

C. Van Deloo, coll. 1863

SCHIZOTRETA Kutorga

Schizotreta papilliformis Ruedemann

8290/1 TYPE Schizotreta papilliformis Ruedemann. New York state museum bulletin 42. 1901. p. 570, pl. 1, fig. 3, 4.

Trenton (Normanskill) shale

Mount Moreno, Hudson N. Y.

R. Ruedemann and M. Sheehy, coll. 1899

1885 $\frac{8200}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 5.
Trenton (Normanskill) shale
Mount Moreno, Hudson N. Y.
R. Ruedemann and M. Sheehy, coll. 1899
On slab with Leptobolus walcotti. Bul. 42, pl. 1, fig. 10.

SELENELLA Hall & Clarke

Selenella gracilis Hall & Clarke

1886 $\frac{8300}{1}$ TYPE Selenella gracilis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 270, fig. 185, 186.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. p. 371, fig. 2, 3.
Onondaga limestone Ontario Can.

SEMINULA McCoy

Seminula rogersi Hall & Clarke

1887 $\frac{8310}{1}$ TYPE Seminula rogersi Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 83, pl. 47, fig. 1, 4.
Hall & Clarke. 14th annual report of the New York state geologist. 1897. pl. 9, fig. 10, 13.
Pendleton sandstone (=Schoharie grit) Pendleton Ind.

1888 $\frac{8310}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 2, 3.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 9, fig. 11, 12.
Pendleton sandstone (=Schoharie grit) Pendleton Ind.

Seminula subquadrata Hall

1889 $\frac{8311}{1}$ HYPOTYPE Athyris subquadrata Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 703.
Seminula subquadrata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 16.
St Louis limestone Pella Ia.

Seminula subtilita Hall

1890 $\frac{8312}{1}$ HYPOTYPE Terebratula subtilita Hall. Stansbury's expedition to the Great Salt lake. 1852. p. 409.
Seminula subtilita Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 21.
Upper Carbonic Chariton county, Mo.

8312/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 25.
Coal measures Winterset Ia.

8312/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 47, fig. 31.
Coal measures Winterset Ia.

8312/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 86, fig. 58.
Coal measures Winterset Ia.

8312/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 86, fig. 59.
Coal measures Winterset Ia.

8312/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 95, fig. 66, 67.
Coal measures Winterset Ia.
S. Calvin. donor

Seminula trinuclea Hall

8313/1 HYPOTYPE Terebratula trinucleus Hall. Transactions of the Albany institute. 1858. 4: 7.
Seminula trinuclea Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 94, fig. 65.
St Louis limestone Spergen hill, Ind.

SIEBERELLA Oehlert

Sieberella galeata Dalman (sp.)

8320/1 HYPOTYPE Atrypa galeata Dalman. Kongl. Svenska Vet. Akad. Handl. 1828. p. 46.
Pentamerus galeatus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 105, fig. 2.
Helderbergian Schoharie N. Y.

8320/2 HYPOTYPE Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 105, fig. 3.
Helderbergian Schoharie N. Y.

8320/3 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 47, fig. 1k–1m.
Helderbergian Schoharie N. Y.

Siphonotreta scotica *see* Schizambon (?) fissus

SPIRIFER Sowerby

Spirifer acuminatus Conrad (sp.)

1900 $\frac{8330}{1}$ HYPOTYPE Delthyris acuminata Conrad. 3d annual report of the New York geological survey. 1839. p. 65.

Spirifera acuminata Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 24.

Hamilton shales — Central New York

Spirifer angustus Hall

1901 $\frac{8331}{1}$ HYPOTYPE Spirifera angusta Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 164.

Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 23, 24.

Hamilton shales — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1902 $\frac{8331}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 25–27.

Hamilton shales — Eighteen Mile creek, Erie co. N. Y.
C. A. White, coll. 1860

Spirifer arenosus Conrad (sp.)

1903 $\frac{8332}{1}$ TYPE Delthyris arenosa Conrad. 3d annual report of the New York geological survey. 1839. p. 65.

Hall. Geology of New York; report on the 4th district. 1843. p. 148, fig. 1.

Delthyris arenaria Mather. Geology of New York; report on the 1st district. 1843. p. 342, fig. 1.

Spirifer arenosus Hall. Paleontology of New York. 1859. v. 3, pl. 98, fig. 3.

Oriskanian — Otsego county, N. Y.

1904 $\frac{8332}{2}$ HYPOTYPE Spirifera unica Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 21.

Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 8.

Spirifer unicus (=Spirifer arenosus) Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, 20, fig. 8.

ndaga limestone — Clarence N. Y.
hite, R. P. Whitfield and C. Van Deloo, coll. 1860

8332/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 1.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878

8332/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 3.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878

Spirifer arrectus *see* Spirifer murchisoni

Spirifer asper Hall

8333/1 HYPOTYPE Spirifer aspera Hall. Geological survey of Iowa. 1858. v. 1, pt 2, p. 508.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 25.
Hamilton shales Centerfield N. Y.
J. M. Clarke purchase

Spirifer audaculus Conrad (sp.)

8334/1 HYPOTYPE Delthyris audacula Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8: 262.
Spirifera medialis Hall. Paleontology of New York. 1867. v. 4, pl. 38, fig. 2, 3.
Hall. 2d annual report of the New York state geologist. 1883. pl. 54, fig. 1.
Spirifer audaculus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 24, fig. 1.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

8334/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38, fig. 4–6.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

8334/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38, fig. 7, 8.
Hamilton shales West Bloomfield N. Y.
C. A. White and C. Van Deloo, coll. 1860

8334/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38, fig. 12, 13.
Hamilton shales Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

1912 $\frac{8334}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38, fig. 21.
Hamilton shales Eighteen Mile creek, N. Y.
C. A. White, coll. 1860

1913 $\frac{8334}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38A, fig. 17.
Hall. 2d annual report of the New York state geologist. 1883. pl. 54, fig. 2.
Spirifer audaculus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 24, fig. 2.
Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

1914 $\frac{8334}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 1.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

1915 $\frac{8334}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 2–4.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

1916 $\frac{8334}{9}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 5, 6.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864

1917 $\frac{8334}{10}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 8-11.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

1918 $\frac{8334}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 5.
Hamilton shales Canandaigua lake, N. Y.

Spirifer audaculus *var.* Hall

1919 $\frac{8334a}{1}$ HYPOTYPE Spirifer medialis var. Hall. Paleontology of New York. 1867. v. 4, pl. 38*, fig. 19.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

1920 $\frac{8334a}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl
Eighteen Mile creek, N
C. A. White, coll. 1

Spirifer audaculus *var.* eatoni Hall

8335/1 TYPE Spirifer medialis var. eatoni Hall. Paleontology of New York. 1867. 4:229, pl. 38*, fig. 12-15,
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

8335/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38*. fig. 17.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Spirifer bicostatus Vanuxem *var.* petilus Hall

8336/1 HPOTYPE Spirifera bicostata? var. petila Hall, Descriptions of new species of fossils from Waldron, Indiana. 1879. p. 15.
Spirifer bicostatus var. petilus Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6 fig. 1, 1a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Spirifer concinnus Hall

8337/1 TYPE Spirifera concinna Hall. 10th annual report of the New York state cabinet of natural history, 1857. p. 60, 61, fig. 1–3.
Helderbergian Schoharie N. Y.

Spirifer crispus Hisinger (sp.)

8338/1 HYPOTYPE Terebratula crispa Hisinger. Kongl. Svenska Vet. Akad. Handl. 1826. explanation of pl. 7.
Spirifer crispus Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 9a–9c.
Coralline (Cobleskill) limestone Schoharie N. Y.

Spirifer crispus *var.* simplex Hall

8339/1 HYPOTYPE Spirifera crispa var. simplex Hall, 28th annual report of the New York state museum. 1879. p. 157.
Beecher & Clarke. New York state museum memoir 1, 1889. pl. 6, fig. 4, 4a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

8339/2 HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 5, 5a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1928 $\frac{8339}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 6, 6a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Spirifer disjunctus Sowerby

1929 $\frac{8340}{1}$ HYPOTYPE Spirifer disjunctus Sowerby. Transactions of the Geological society. 2d ser. 1840. 5:704.
Spirifera disjuncta Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 1.
Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1930 $\frac{8340}{2}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 2.
Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1931 $\frac{8340}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 3.
Chemung beds Cattaraugus county, N. Y.

1932 $\frac{8340}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 4.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1933 $\frac{8340}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 5.
Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1934 $\frac{8340}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 7.
Chemung beds Little Genesee, Allegany co. N. Y.
C. Van Deloo, coll. 1863

1935 $\frac{8340}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 8.
Chemung beds Randolph N. Y.
C. Van Deloo, coll. 1863

1936 $\frac{8340}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 9.
mung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/9 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 10.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863

8340/10 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 11.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/11 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 12.
Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 16.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 30, fig. 16.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/12 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 13.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/13 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 14.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/14 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 15.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8340/15 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 41, fig. 16.
Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

8340/16 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 1.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863

8340/17 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 2.
Chemung beds Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

1946 $\frac{8340}{18}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 3.
Hall. 2d annual report of the New York state g
gist. 1883. pl. 55, fig. 17.
Hall & Clarke. Paleontology of New York. 1
v. 8, pt 2, pl. 30, fig. 17.
Chemung beds Western New

1947 $\frac{8340}{19}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 4.
Chemung beds Randolph N
C. Van Deloo, coll.

1948 $\frac{8340}{20}$ HYPOTYPE Hall. Paleontology of New York.
v. 4, pl. 42, fig. 5.
Chemung beds Meadville
C. Van Deloo, coll.

1949 $\frac{8340}{21}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 6.
Chemung beds Conewango N
C. Van Deloo, coll.

1950 $\frac{8340}{22}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 7.
Chemung beds Conewango N
C. Van Deloo, coll.

1951 $\frac{8340}{23}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 8.
Chemung beds Randolph N
C. Van Deloo, coll.

1952 $\frac{8340}{24}$ HYPOTYPE Hall. Paleontology of New York. 1
v. 4, pl. 42, fig. 9.
Chemung beds New Albion N
C. Van Deloo, coll.

1953 $\frac{8340}{25}$ HYPOTYPE Hall. Paleontology of New York.
v. 4. pl. 42, fig. 10.
Chemung beds Cherry Creek, Cattaraugus co. N
C. Van Deloo coll.

1954 $\frac{8340}{26}$ HYPOTYPE Hall. Paleontology of New York.
v. 4, pl. 42, fig. 11.
Chemung beds New Albion N

1955 $\frac{8340}{27}$ HYPOTYPE Hall. Paleontology of New York.
v. 4, pl. 42, fig. 12.
Chemung beds Cherry Creek N
C. Van Deloo, coll.

8340/28 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 13.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

8340/29 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 14.
Chemung beds Allegany station, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8340/30 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 15, 16.
Chemung beds Salamanca N. Y.
C. Van Deloo, coll. 1863

8340/31 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 17.
Chemung beds Randolph N. Y.
C. Van Deloo, coll. 1863

8340/32 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 18.
Chemung beds Horse Corners, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

8340/33 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 42, fig. 19.
Hall. 2d annual report of the New York state geologist. 1883. pl. 55, fig. 14.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 30, fig. 14.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

Spirifer duodenarius Hall

8341/1 HYPOTYPE Delthyris duodenarius Hall. Geology of New York; report on the 4th district. 1843. p. 172.
Spirifera duodenaria Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 13.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1862

8341/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 14.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

1964 $\frac{83}{3}\frac{41}{}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 15.

Hall. 2d annual report of the New York state geologist. 1883. pl. 58, fig. 12.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 33, fig. 12.

Schoharie grit — Knox N. Y.

C. Van Deloo, coll. 1862

1965 $\frac{83}{4}\frac{41}{}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 58, fig. 11.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 33, fig. 11.

Schoharie grit — Knox N. Y.

C. Van Deloo, coll. 1862

Spirifer eriensis Grabau

1966 $\frac{83}{1}\frac{42}{}$ TYPE Spirifer eriensis Grabau. Geological society of America bulletin. 1900. 11:366, pl. 21, fig. 2a.

Manlius limestone — Williamsville. Erie co. N. Y.

A. W. Grabau, coll.

1967 $\frac{83}{2}\frac{42}{}$ TYPE Grabau. Geological society of America bulletin. 1900. v. 11, pl. 21, fig. 2b.

Manlius limestone — Williamsville, Erie co. N. Y.

A. W. Grabau, coll.

Spirifer fimbriatus Conrad (sp.)

1968 $\frac{83}{1}\frac{43}{}$ HYPOTYPE: HYPOPLASTOTYPE Delthyris fimbriatus Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:263.

Spirifera fimbriata Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig 2.

Schoharie grit — Clarksville, Albany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

1969 $\frac{83}{2}\frac{43}{}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 3.

Hall. 2d annual report of the New York state geologist. pl. 61, fig. 17.

Clarke. Paleontology of New York. 1894. fig. 17.

Clarksville N. Y.

Whitfield and C. Van Deloo, coll. 1861

8343/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 16–19.
Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

8343/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 38, fig. 9.
Onondaga limestone Leroy N. Y.

Spirifer granulosus Conrad (sp.)

8344/1 HYPOTYPE Delthyris granulosa Conrad. 3d annual report of the New York geological survey. 1839. p. 65.
Spirifer granulosus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 9, 10.
Hamilton beds Petosky Mich.

Spirifer gregarius (Clapp) Hall

8345/1 HYPOTYPE Spirifer gregaria (Clapp ms.) Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 127.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 7.
Onondaga limestone Falls of the Ohio, Ky.

Spirifer hemiplicatus *see* Enteles hemiplicata

Spirifer hungerfordi Hall

8346/1 TYPE Spirifer hungerfordi Hall. Geological survey of Iowa. 1858. v. 1, pt 2, pl. 4, fig. 1b, 1d, 1e.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 37, fig. 29.
Upper Devonic Rockford Ia.

Spirifer laevis Hall

8347/1 HYPOTYPE Delthyris laevis Hall. Geology of New York; report on the 4th district. 1843. p. 245.
Spirifer laevis Hall. Paleontology of New York. 1867. v. 4, pl. 39, fig. 7.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 38, fig. 12.
Ithaca beds Ithaca N. Y.

1976 $\frac{8347}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 84, fig. 29.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Spirifer lamellosus *see* Athyris lamellosa

Spirifer ligus Owen

1977 $\frac{8348}{1}$ HYPOTYPE Spirifer ligus Owen. Geological survey of Iowa, Wisconsin and Minnesota. 1852. p. 585.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 13.
Middle Devonic Independence Ia.
R. P. Whitfield, coll. 1866

Spirifer macbridii Calvin

1978 $\frac{8349}{1}$ HYPOTYPE Spirifer macbridei Calvin American journal of science. 1883. 3d ser. 25 :433.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 25, fig. 13.
Upper Devonic Rockford Ia.
R. P. Whitfield, coll. 1866

Spirifer macer Hall

1979 $\frac{8350}{1}$ TYPE Spirifera macra Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 134.
Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 17.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

1980 $\frac{8350}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 18.
Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 1.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 1.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1866

1981 $\frac{8350}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 22.
Knox N.
C. Van Deloo, coll. 1

8350/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 23.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

8350/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 24.
Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 2.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 2.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

8350/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 25.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Spirifer macronotus Hall

8351/1 TYPE Delthyris macronota Hall. Geology of New York; report on the 4th district. 1843. p. 206.
Spirifera macronota Hall. Paleontology of New York. 1867. 4:231, pl. 38A, fig. 4–6.
Hamilton shales Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

8351/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 38A, fig. 13.
Hall. 2d annual report of the New York state geologist. 1883. pl. 54, fig. 18.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 24, fig. 18.
Hamilton shales Canandaigua lake, N. Y,

8351/3 TYPE Hall. Paleontology of New York. 1867. v. 4. pl. 38A, fig. 18.
Hamilton shales Eighteen Mile creek, N. Y.
C. Van Deloo, coll. 1864

Spirifer macropleura Conrad (sp.)

8352/1 HPOTYPE Delthyris macropleura Conrad. 4th annual report of the New York state geological survey. 1840. p. 207.
Spirifer macropleurus Hall. Paleontology of New York. 1859. v. 3, pl. 27, fig. 1k.
Helderbergian Schoharie county, N. Y.

Spirifer macrothyris Hall

1989 $\frac{8353}{1}$ TYPE Spirifer macrothyris Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 132.

Hall. Paleontology of New York. 1867. v. 4, pl. 3[illegible] fig. 16.

Hall. 2d annual report of the New York state geologist. 1883. pl. 53, fig. 16.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 23, fig. 16.

Onondaga limestone Williamsville, Erie co. N. Y.

Spirifer marcyi Hall

1990 $\frac{8354}{1}$ HYPOTYPE Spirifer marcyi Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 158.

Hall. Paleontology of New York. 1867. v. 4, pl. 37, fig. 13, 16.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 18[illegible]

1991 $\frac{8354}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 37, fig. 15.

Hamilton shales Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 18[illegible]

1992 $\frac{8354}{3}$ HYPOTYPE Hall. Paleontology of NewYork. 1867. v. 4, pl. 37, fig. 20.

Hall. 2d annual report of the New York state geologist. 1883. pl. 52, fig. 13.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 22, fig. 13.

Hamilton shales Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 18[illegible]

Spirifer medialis var. *see* Spirifer audaculus [illegible]

Spirifer medialis var. eatoni *see* Spirifer audaculus *var.* eatoni

Spirifer mesacostalis Hall

1993 [illegible]lthyris mesacostalis Hall. G[illegible] report on the 4th district. 1[illegible]

Spirifer mesacostalis Hall. Paleontology of New York. 1867. v. 4, pl. 40, fig. 11.

Chemung beds — Olean, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Spirifer mesacostalis? var. acuminata *see* Spirifer mucronatus *var.* posterus

Spirifer mucronatus Conrad (sp.)

×3566/1 HYPOTYPE Delthyris mucronatus Conrad. 5th annual report of the New York state geological survey. 1841. p. 54.

Spirifera mucronata Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 1.

Hamilton shales — Darien Center, Genesee co. N. Y. C. A. White, coll. 1860

×3566/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 2.

Hamilton shales — Vincent, Ontario co. N. Y. C. A. White and C. Van Deloo, coll. 1860

×3566/3 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 3.

Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 15.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 15.

Marcellus shale — Alden, Erie co. N. Y. C. A. White and C. Van Deloo, coll. 1860

13566/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 4.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 16.

Hamilton shales — Darien Center, Genesee co. N. Y. C. A. White, coll. 1860

13566/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 8.

Hamilton shales — Tichenor's gully, Canandaigua lake, N. Y. J. M. Clarke purchase

13566/6 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 11–14.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 34, fig. 13.

Hamilton shales Eighteen Mile creek, Erie co. N. Y. C. Van Deloo, coll. 1864

2000 $\frac{8356}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 16.

Hamilton shales Eighteen Mile creek, N. Y. C. A. White, coll. 1860

2001 $\frac{8356}{8}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 34, fig. 17.

Hamilton shales Schoharie county, N. Y. W. M. Gabb, coll. 1857

2002 $\frac{8356}{9}$ HYPOTYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 22.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 24, fig. 22.

Hamilton shales Summit Corners, Schoharie co. N. Y. C. Van Deloo, coll. 1860

Spirifer mucronatus Conrad *var.* **posterus** Hall & Clarke

2003 $\frac{8357}{1}$ TYPE: PLASTOTYPE Spirifer mucronatus Conrad var. posterus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 361, pl. 34, fig. 27.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 7, fig. 22.

Ithaca beds Ithaca N. Y. J. W. Hall and C. Van Deloo, coll. 186

2004 $\frac{8357}{2}$ TYPE Spirifer mesacostalis? var. acuminata Hall. 2d annual report of the New York state geologist. 1883. pl. 59, fig. 28.

Hall & Clarke. Paleontology of New York. 189 v. 8, pt 2, pl. 34, fig. 28.

Ithaca beds Ithaca N. Y J. W. Hall and C. Van Deloo, coll. 18

2005 $\frac{8357}{3}$ TYPE Hall. 2d annual report of the New York st geologist. 1883. pl. 59, fig. 29.

Hall & Clarke. Paleontology of New York. 189 v. 8, pt 2, pl. 34, fig. 29.

Ithaca beds Ithaca N. J. W. Hall and C. Van Deloo, coll. 18

Spirifer multistriatus *see* Trematospira mu

Spirifer murchisoni Castelnau

8358/1 HYPOTYPE Spirifer murchisoni Castelnau. Essai sur le système Silurien de l'Amerique septentrionale. 1843. p. 41.

Spirifer arrectus Hall. Paleontology of New York. 1859. 3:422.

Spirifer murchisoni Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 26.

Oriskanian Becraft mountain, Hudson N. Y.

8358/2 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 27.

Oriskanian Becraft mountain, Hudson N. Y.

8358/3 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 28.

Oriskanian Becraft mountain, Hudson N. Y.

8358/4 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 29.

Oriskanian Becraft mountain, Hudson N. Y.

8358/5 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 30.

Oriskanian Becraft mountain, Hudson N. Y.

Spirifer? perforatus *see* Trematospira perforata

Spirifer plicatellus var. radiatus *see* Spirifer radiatus

Spirifer praematurus Hall

8359/1 TYPE Spirifera praematura Hall. Proceedings of the American philosophical society. 1866. 10:246.

Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 31.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

8359/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 33.

Hall. 2d annual report of the New York state geologist. 1883. pl. 61, fig. 23.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 23.

Chemung beds Meadville Pa.

C. Van Deloo, coll. 1863

2013 $\frac{8359}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 34.

Hall. 2d annual report of the New York state geologist. 1882. pl. 61, fig. 24.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 24.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

2014 $\frac{8359}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 33, fig. 35.

Hall. 2d annual report of the New York state geologist. 1883. pl. 61, fig 25.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 36, fig. 25.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

Spirifer pyxidatus *see* Metaplasia pyxidata

Spirifer radiatus Sowerby

2015 $\frac{8360}{1}$ HYPOTYPE Spirifer plicatellus var. radiatus Sowerby. Mineral conchology. 1825. 5:493.

Spirifer radiatus Hall. Paleontology of New York. 1852. v. 2, pl. 22, fig. 2a, 2b.

Clinton beds — Lockport N. Y.

2016 $\frac{8360}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 9.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

2017 $\frac{8360}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 6, fig. 10, 10a.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Spirifer raricosta Conrad (sp.)

2018 $\frac{8361}{1}$ HYPOTYPE Delthyris raricosta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839 8:262.

Spirifera raricosta Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 30.

Schoharie grit — Schoharie N. Y.

C. Van Deloo, coll. 1862

3651/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 31.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

3651/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 32.
Hall. 2d annual report of the New York state geologist. 1883. pl. 60, fig. 17.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 35, fig. 17.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

3651/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 27, fig. 33.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

3651/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 3–6.
Onondaga limestone Williamsville, Erie co. N. Y.

3651/6 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 8.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

3651/7 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 30, fig. 9.
Hall. 2d annual report of the New York state geologist. 1883. pl. 60, fig. 16.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 35, fig. 16.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

Spirifer saffordi Hall

3652/1 HYPOTYPE: HYPOPLASTOTYPE Spirifer saffordi Hall. Paleontology of New York. 1859. 3:203.
Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.

3652/2 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.

2027 $\frac{8362}{3}$ HYPOTYPE : HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

Spirifer subumbonatus Hall

2028 $\frac{8364}{1}$ HYPOTYPE Orthis subumbona Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 168.
Spirifer subumbona Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 29, fig. 14.
Hamilton shales Canandaigua lake, N. Y.
Spirifer textus *see* Syringothyris texta

Spirifer tullius Hall

2029 $\frac{8365}{1}$ TYPE Spirifera tullia Hall. Paleontology of New York. 1867. 4 : 218, pl. 35, fig. 1.
Spirifer tullius Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 37, fig. 7.
Hamilton shales Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2030 $\frac{8365}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 4.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 37, fig. 6.
Hamilton shales Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2031 $\frac{8365}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 5.
Hamilton shales Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2032 $\frac{8365}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 7.
Hamilton shales Tully, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll 1863

2033 $\frac{8365}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 8.
Hamilton shales Apulia, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

2034 $\frac{8365}{6}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 35, fig. 9.
Hamilton shales Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

Spirifer ventricosus *see* Nucleospira concinna
Spirifera alta *see* Cyrtia alta

Spirifera cyrtinaeformis *see* Cyrtia cyrtiniformis

Spirifera medialis *see* Spirifer audaculus

Spirifera medialis var. eatoni *see* Spirifer audaculus *var.* eatoni

Spirifera unica *see* Spirifer arenosus

Spirifera? waldronensis *see* Mimulus waldronensis

STENOSCHISMA Conrad

Stenoschisma formosa Hall

8380/1 HYPOTYPE Rhynchonella formosa Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 76.

Stenoschisma formosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 56, fig. 45.

Helderbergian — The Helderberg, N. Y.

Streptis waldronensis *see* Mimulus waldronensis

Streptorhynchus chemungensis *see* Orthothetes chemungensis

Streptorhynchus chemungensis var. arctostriata *see* Orthothetes chemungensis *var.* arctostriatus

Streptorhynchus chemungensis var. pandora *see* Orthothetes pandora

Streptorhynchus chemungensis var. perversus *see* Orthothetes perversus

Streptorhynchus hydraulicus *see* Orthothetes hydraulicus

Streptorhynchus pandora *see* Orthothetes pandora

Streptorhynchus subplanum *see* Orthothetes subplana

Streptorhynchus woolworthana *see* Orthothetes woolworthanus

STROPHALOSIA King

Strophalosia hystricula Hall

8300/1 TYPE Productella hystricula Hall. Paleontology of New York. 1867. 4:178, pl. 26, fig. 1.

Chemung beds — Leon, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2037 $\frac{8300}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 2.
Chemung beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2038 $\frac{8300}{3}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 5.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2039 $\frac{8300}{4}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 7.
Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 29.
Strophalosia hystricula Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 29.
Chemung beds Near East Randolph, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

2040 $\frac{8300}{5}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 26, fig. 8.
Chemung beds Leon N. Y.
C. Van Deloo, coll. 1863

2041 $\frac{8300}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 31.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863

Strophalosia muricata Hall

2042 $\frac{8301}{1}$ TYPE Chonetes muricatus Hall. Paleontology of New York. 1867. 4: 143, pl. 22, fig. 29.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

2043 $\frac{8301}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 30.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

2044 $\frac{8301}{3}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 33.
Hall. 2d annual report of the New York state geologist. pl. 47, fig. 30.

Strophalosia muricata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 30.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

8391/4 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 34.
Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 12.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 12.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

8391/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 38, 42.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

8391/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 39.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

8391/7 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 22, fig. 40.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 38, 42.
Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

Strophalosia radicans A. Winchell (sp.)

8392/1 HYPOTYPE Crania radicans A. Winchell. Report on the lower peninsula of Michigan. 1866. p. 92.
Strophalosia radicans Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 15B, fig. 29.
Hamilton beds — Little Traverse bay, Mich.
C. Rominger, coll. 1888

Strophalosia rockfordensis Hall & Clarke

8393/1 TYPE Strophalosia rockfordensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 353, pl. 17A, fig. 1, 2.
Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 7, fig. 9, 10.
Upper Devonic — Rockford Ia.

Strophalosia truncata Hall

2051 $\frac{8304}{1}$ TYPE Productus truncatus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 171.

Productella truncata Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 16.

Hall. 2d annual report of the New York state geologist 1883. pl. 48, fig. 11.

Strophalosia truncata Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 11.

Marcellus shales Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

2052 $\frac{8304}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 23, fig. 23.

Hall. 2d annual report of the New York state geologist. 1883. pl. 48, fig. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 17, fig. 14.

Hamilton shales Tully N. Y.

R. P. Whitfield and G. B. Simpson, coll. 1863

STROPHEODONTA Hall

Stropheodonta alveata Hall

2053 $\frac{8400}{1}$ TYPE Strophodonta alveata Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 36.

Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 2.

Schoharie grit Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

2054 $\frac{8400}{2}$ TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 3.

Schoharie grit Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

Stropheodonta callosa Hall

2055 $\frac{8401}{1}$ TYPE: PLASTOTYPE Strophodonta callosa Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 36.

Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 4.

Schoharie grit Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

8401/2 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 6.

Schoharie grit — Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

On slab with type of Pholidops areolata Pal. N. Y. v. 4, pl. 3, fig. 5.

8401/3 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 7.

Hall. 2d annual report of the New York state geologist. 1883. pl. 47, fig. 37.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 16, fig. 37.

Schoharie grit — Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

8401/4 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 8.

Schoharie grit — Near Clarksville N. Y.

C. Van Deloo, coll. 1862

8401/5 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 9, 10.

Schoharie grit — Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

8401/6 TYPE Hall. Paleontology of New York. 1867. v. 4, pl. 20, fig. 9a, 9b.

Schoharie grit — Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

Stropheodonta canace Hall & Whitfield

8402/1 TYPE Strophodonta canace Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 236, pl. 11, fig. 8–10.

Upper Devonic — Rockford Ia.

R. P. Whitfield, coll. 1866

Stropheodonta concava Hall

8403/1 HYPOTYPE Strophomena (Strophodonta) concava Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 140.

Strophodonta concava Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 2.

Hamilton shales — York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

2063 $\frac{8402}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 4, 5.

Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 20, 21.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 14, fig. 20, 21.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

2064 $\frac{8402}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 16, fig. 1a.

Hamilton shales — Canandaigua lake, N. Y.

2065 $\frac{8402}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 16, fig. 1b, 1c.

Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 16, 17.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 14, fig. 16, 17.

Hamilton shales — Canandaigua lake, N. Y.

2066 $\frac{8402}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 16, fig. 1d.

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

2067 $\frac{8402}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 16, fig. 1f, 1g.

Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 19.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 14, fig. 19.

Hamilton shales — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Stropheodonta crebristriata Conrad (sp.)

2068 $\frac{8404}{1}$ HYPOTYPE: HYPOPLASTOTYPE Strophomena crebristriata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:254.

Strophodonta crebristriata Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 12.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

8404/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 18, 19.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

8404/3 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 23.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

Stropheodonta demissa Conrad (sp.)

8405/1 HYPOTYPE: HYPOPLASTOTYPE Strophomena demissa Conrad. Journal of the Academy of natural sciences of Philadelphia. 1839. 8:258.
Strophodonta demissa Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 14.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

8405/2 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 15.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

8405/3 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 16.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

8405/4 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 12, fig. 3–5.
Hall. 2d annual report of the New York state geologist. 1883. pl. 45, fig. 10.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 14, fig. 10.
Onondaga limestone Dry Lots, Herkimer co. N. Y.
C. A. White, coll. 1860

8405/5 HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 2a.
Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of Leptostrophia perplana Conrad. Pal. N. Y. v. 4, pl. 17, fig. 11.

2076 $\frac{8405}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 2c.
Hamilton shales Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860

2077 $\frac{8405}{7}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 17, fig. 2c.
Hamilton shales Eighteen Mile creek, Erie co. N. Y.
C. Van Deloo, coll. 1864

Stropheodonta parva Hall

2078 $\frac{8406}{1}$ TYPE Strophodonta parva Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 37.
Hall. Paleontology of New York. 1867. v. 4, pl. 11, fig. 5.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Stropheodonta patersoni Hall

2079 $\frac{8407}{1}$ HYPOTYPE Strophomena (Strophodonta) patersoni Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 114.
Strophodonta patersoni Hall. Paleontology of New York. 1867. v. 4, pl. 13, fig. 3.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

2080 $\frac{8407}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 15, fig. 6.
Onondaga limestone Caledonia N. Y.
C. A. White, coll. 1860

Stropheodonta vascularia Hall

2081 $\frac{8408}{1}$ TYPE: PLASTOTYPE Strophodonta vascularia Hall. Paleontology of New York. 1859. 3:412, pl. 95, fig. 10.
Oriskanian The Helderberg, N. Y.

Strophodonta ampla *see* Strophonella ampla

Strophodonta caelata *see* Strophonella caelata

Strophodonta cayuta *see* Douvillina cayuta

Strophodonta inaequiradiata *see* Douvillina inaequiradiata

ɔhodonta inaequistriata *see* Douvillina
ita

Strophodonta junia *see* Leptostrophia junia

Strophodonta lincklaeni *see* Leptostrophia lincklaeni

Strophodonta magnifica *see* Leptostrophia magnifica

Strophodonta magniventra *see* Leptostrophia magniventra

Strophodonta nacrea *see* Pholidostrophia nacrea

Strophodonta perplana *see* Leptostrophia perplana

Strophodonta perplana var. nervosa *see* Leptostrophia perplana *var.* nervosa

Strophodonta profunda *see* Brachyprion profundum

Strophodonta punctulifera *see* Strophonella punctulifera

Strophodonta radiata *see* Strophonella radiata

Strophodonta reversa *see* Strophonella reversa

STROPHOMENA Rafinesque (de Blainville)

Strophomena (Strophodonta) ampla *see* Strophonella ampla

Strophomena arctostriata *see* Orthothetes chemungensis *var.* arctostriatus

Strophomena (?) bipartita Hall

2 $\frac{8420}{1}$ TYPE Leptaena bipartita Hall. Paleontology of New York. 1852. 2:326, pl. 74, fig. 3a.

Coralline (Cobleskill) limestone Schoharie N. Y

3 $\frac{8420}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 4a, 4b.

Coralline (Cobleskill) limestone Schoharie N. Y.

4 $\frac{8420}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 5a.

Coralline (Cobleskill) limestone Schoharie N. Y.

Strophomena carinata *see* Chonetes carinatus

Strophomena carinata *see* Tropidoleptus carinatus

Strophomena chemungensis *see* Orthothetes chemungensis

Strophomena (Strophodonta) concava *see* Stropheodonta concava

Strophomena conradi Hall & Clarke

2085 $\frac{8421}{1}$ TYPE Strophomena conradi Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 344, pl. 20, fig. 32, 32a.

Hall & Clarke. 14th annual report of the New York state geologist. 1895. pl. 4, fig. 29, 30.

Trenton limestone Trenton Falls, Oneida co. N. Y.

Strophomena crebristriata *see* Stropheodonta crebristriata

Strophomena demissa *see* Stropheodonta demissa

Strophomena (Strophodonta) inaequiradiata *see* Douvillina inaequiradiata

Strophomena inaequistriata *see* Douvillina inaequistriata

Strophomena lachrymosa *see* Productella lachrymosa

Strophomena mucronata *see* Chonetes mucronatus

Strophomena mucronata *see* Leptostrophia mucronata

Strophomena (Strophodonta) nacrea *see* Pholidostrophia nacrea

Strophomena nervosa *see* Leptostrophia perplana *var.* nervosa

Strophomena (Strophodonta) patersoni *see* Stropheodonta patersoni

Strophomena perplana *see* Leptostrophia perplana

Strophomena radiata *see* Strophonella radiata

Strophomena rhomboidalis *see* Leptaena rhomboidalis

Strophomena rugosa *see* Leptaena rhomboidalis

Strophomena striata *see* Strophonella (Amphistrophia) striata

Strophomena subplana *see* Orthothetes subplanus

Strophomena textilis *see* Leptostrophia junia

Strophomena woolworthana *see* Orthothetes woolworthanus

STROPHONELLA Hall

Strophonella ampla Hall

8430/1 HYPOTYPE Strophomena (Strophodonta) ampla Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 111.

Hall. Paleontology of New York. 1867. v. 4, pl. 14, fig. 1e.

Onondaga limestone — Western New York

8430/2 HYPOTYPE Strophodonta ampla Hall. Paleontology of New York. 1867. v. 4, pl. 14, fig. 1h.

Strophonella ampla Hall. 2d annual report of the New York state geologist. 1883. pl. 43, fig. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 12, fig. 14.

Onondaga limestone — Onondaga Valley N. Y. C. A. White, coll. 1860

Strophonella caelata Hall

8431/1 TYPE Strophodonta caelata Hall. Paleontology of New York. 1867. 4:112, pl. 19, fig. 7.

Chemung beds — Waverly, Tioga co. N. Y.

Strophonella punctulifera Conrad (sp.)

8432/1 HYPOTYPE Leptaena punctulifera Conrad. 2d report of the New York state geological survey. 1838. p. 112.

Strophodonta punctulifera Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 4c.

Helderbergian — The Helderberg, N. Y.

Strophonella radiata Vanuxem (sp.)

8433/1 HYPOTYPE Strophomena radiata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 122.

Strophodonta radiata Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 8a, 8b.

Helderbergian — Herkimer county, N. Y.

8433/2 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 21, fig. 9, 9b.

Helderbergian — The Helderberg, N. Y.

Strophonella reversa Hall

2092 $\frac{84}{1}\frac{34}{1}$ TYPE Strophodonta reversa Hall. Ge survey of Iowa. 1858. v. 1, pt 2, p. 494, pl. 3, fig
Upper Devonic Rockf

2093 $\frac{84}{2}\frac{34}{1}$ TYPE Hall. Geological survey of Iowa. 1858. v. pl. 3, fig. 4d.
Upper Devonic Rock

2094 $\frac{84}{3}\frac{34}{1}$ HYPOTYPE Strophonella? (Strophod reversa Hall. 2d annual report of the New Yo geologist. 1883. pl. 43, fig. 18.
Strophonella reversa Hall & Clarke. tology of New York. 1892. v. 8, pt 1, pl. 12, fi
Upper Devonic Rock

2095 $\frac{84}{4}\frac{34}{1}$ HYPOTYPE Hall. 2d annual report of the New Yc geologist. 1883. pl. 43, fig. 19.
Hall & Clarke. Paleontology of New York. v. 8, pt 1, pl. 12, fig. 19.
Upper Devonic Rockf

Strophonella (Strophodonta) re *see* Strophonella reversa

Strophonella striata *see* Strophonella (strophia) striata

Strophonella (Amphistrophia) striata Hall

2096 $\frac{84}{1}\frac{35}{1}$ HYPOTYPE Strophomena striata Hall. Gec New York; report on the 4th district. 1843. p. 1
Strophonella striata Beecher & New York state museum memoir 1. 1889. pl. 3 1a, 3.
Niagaran Waldr
C. D. Walcott and C. Van Deloo, co

2097 $\frac{84}{2}\frac{35}{1}$ HYPOTYPE Beecher & Clarke. New York state r memoir 1. 1889. pl. 3, fig. 4.
Niagaran Waldr
C. D. Walcott and C. Van Deloo, co

2098 $\frac{84}{3}\frac{35}{1}$ HYPOTYPE Beecher & Clarke. New York state r memoir 1. 1889. pl. 3, fig. 5.
Niagaran Waldr
C. D. Walcott and C. Van Deloo, co

2099 $\frac{8436}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 6.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

2100 $\frac{8436}{5}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 7.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

2101 $\frac{8436}{6}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 3, fig. 8.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

SYNTROPHIA Hall & Clarke

Syntrophia (?) calcifera Billings (sp.)

2102 $\frac{8450}{1}$ HYPOTYPE Camarella calcifera Billings. Canadian naturalist and geologist. 1861. 6: 318.
Syntrophia (?) calcifera Hall & Clarke, Paleontology of New York. 1894. v. 8, pt 2, pl. 62. fig 24.
Upper Cambric Point Levis Can.

Syntrophia lateralis Whitfield (sp.)

2103 $\frac{8451}{1}$ HYPOTYPE Triplesia lateralis Whitfield. American museum of natural history bulletin. 1886. p. 303.
Syntrophia lateralis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 4.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.

2104 $\frac{8451}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 5.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.

2105 $\frac{8451}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 62, fig. 9, 10.
Beekmantown limestone (Ft Cassin beds) Ft Cassin Vt.

SYRINGOTHYRIS A. Winchell

Syringothyris randalli Simpson

2106 $\frac{8460}{1}$ HYPOTYPE Syringothyris randalli Simpson. Transactions of the American philosophical society, new ser. 1889. 16:441.
Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 13.
Waverly beds Warren Pa.
C. E. Beecher, coll. 1884

2107 $\frac{8460}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 14, 17.
Waverly beds Warren Pa.
C. E. Beecher, coll. 1884

2108 $\frac{8460}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 15.
Waverly beds Warren Pa.
C. E. Beecher, coll. 1884

2109 $\frac{8460}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 16.
Waverly beds Warren Pa.
C. E. Beecher, coll. 1884

Syringothyris texta Hall

2110 $\frac{8461}{1}$ HYPOTYPE Spirifer textus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 169.
Syringothyris texta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 8, 9.
Keokuk beds New Providence Ind.

2111 $\frac{8461}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 10.
Keokuk beds New Providence Ind.

2112 $\frac{8461}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 27, fig. 11.
Keokuk beds New Providence Ind.

Syringothyris typus A. Winchell

2113 $\frac{8462}{1}$ HYPOTYPE Syringothyris typa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 48, fig. 40.
Keokuk beds New Providence Ind.
R. P. Whitfield, coll. 1865

TEREBRATULA Llhwyd

Terebratula adrieni *see* Retzia adrieni
Terebratula crispa *see* Spirifer crispus
Terebratula marginalis *see* Atrypa marginalis
Terebratula mormoni *see* Hustedia mormoni

Terebratula? ontario Hall

4 8470/1 TYPE Terebratula ontario Hall. Paleontology of New York. 1867. 4:418, pl. 60, fig. 46–48.

Hamilton shales — Canandaigua lake, N. Y.

Terebratula ovoides *see* Rensselaeria ovoides

Terebratula planirostra *see* Cryptonella planirostris

Terebratula rectirostra *see* Cryptonella rectirostris

Terebratula romingeri *see* Cranaena romingeri

Terebratula spiriferoides *see* Athyris spiriferoides

Terebratula subtilita *see* Seminula subtilita

Terebratula sullivanti *see* Eunella sullivanti

Terebratula trinucleus *see* Seminula trinuclea

Terebratulites biforatus *see* Platystrophia biforata

TREMATIS Sharpe

Trematis millepunctata Hall

5 8480/1 HYPOPLASTOTYPE Trematis millepunctata Hall. Descriptions of new species of Crinoidea and other fossils. 1866. p. 14.

Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4G, fig. 4.

Cincinnatian — Covington Ky.

TREMATOSPIRA Hall

Trematospira camura Hall

6 8490/1 HYPOTYPE Atrypa camura Hall. Paleontology of New York. 1852. 2: 273.

Trematospira camura Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 4.

Rochester shales — Lockport N. Y.

Trematospira hirsuta *see* Parazyga hirsuta

Trematospira multistriata Hall

7 8491/1 HYPOTYPE Spirifer multistriatus Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 59.

Trematospira multistriata Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 11.

Helderbergian — Near Clarksville N. Y.

2118 $\frac{8491}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 12.
Helderbergian The Helderberg, N. Y.

2119 $\frac{8491}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 13.
Helderbergian The Helderberg, N. Y.

2120 $\frac{8491}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 49, fig. 14.
Helderbergian The Helderberg, N. Y.

2121 $\frac{8491}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.

2122 $\frac{8491}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.

2123 $\frac{8491}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.

2124 $\frac{8491}{8}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 6, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.

Trematospira? nobilis *see* Cyclorhina nobilis

Trematospira perforata Hall

2125 $\frac{8492}{1}$ TYPE Spirifer? perforatus Hall. Descriptions of new species of paleozoic fossils; in regents report. 1857. p. 60.
Trematospira perforata Hall. Paleontology of New York. 1859. v. 3, pl. 28A, fig. 3h.
New Scotland beds Becraft mountain, Hudson N. Y.

TRIGERIA Bayle

Trigeria (?) lepida Hall

2126 $\frac{8500}{1}$ TYPE Rhynchospira lepida Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 83.
Hall. Paleontology of New York. 1867. v. 4, pl. 45, fig. 1.
Hamilton shales Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1886

TRIMERELLA Billings

Trimerella acuminata Billings

8510/1 HYPOPLASTOTYPE Trimerella acuminata Billings Paleozoic fossils. 1865. 1:167.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4B, fig. 6.
Niagaran — Port Byron Ill.

Trimerella ohioensis Meek

8511/1 HYPOPLASTOTYPE Trimerella ohioensis Meek. American journal of science, ser. 3. 1871. 1:305.
Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4A, fig. 3.
Niagaran — Port Byron Ill.

8511/2 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4A, fig. 4.
Niagaran — Rising Sun O.

8511/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 4A, fig. 8.
Niagaran — Ottawa county, O.

TRIPLECIA Hall

Triplecia extans Emmons (sp.)

8520/1 HYPOTYPE Atrypa extans Emmons. Geology of New York; report on the 2d district. 1842. p. 395.
Triplecia extans Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 4.
Trenton limestone — Carlton island, Jefferson co. N. Y.
J. M. Clarke purchase

Triplecia spiriferoides McCoy (sp.)

8521/1 HYPOTYPE Leptaena (Strophomena) spiriferoides McCoy. Annals and magazine of natural history, ser. 2. 8:402.
Triplecia spiriferoides Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, pl. 11C, fig. 10, 11.
Caradoc sandstone — Wales
Murchison collection

Triplesia lateralis *see* Syntrophia lateralis
Triplesia putillus *see* Mimulus waldronensis

TROPIDOLEPTUS Hall

Tropidoleptus carinatus Conrad (sp.)

2133 $\frac{8530}{1}$ HYPOTYPE Strophomena carinata Conrad. 3d annual report of the New York geological survey. 1839. p. 64.

Tropidoleptus carinatus Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3a.

Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

2134 $\frac{8530}{2}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3e.

Hamilton shales Menteth's point, Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

2135 $\frac{8530}{3}$ HYPOTYPE Hall. Paleontology of New York. 1867 v. 4, pl. 62, fig. 3i–3k.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 83, fig. 30–32.

Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

2136 $\frac{8530}{4}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3n, 3o.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 35.

Hamilton shales Canandaigua lake, N. Y.

2137 $\frac{8530}{5}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, pl. 62, fig. 3t, 3u.

Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 33.

Hamilton beds Fultonham, Schoharie co. N. Y.

2138 $\frac{8530}{6}$ HYPOTYPE Hall. Paleontology of New York. 1867. v. 4, p. 406, fig. 1, 2.

Hamilton shales Canandaigua lake, N. Y.

2139 $\frac{8530}{7}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 26.

Hamilton shales Canandaigua lake, N. Y.

UNCINULUS Bayle

Uncinulus abruptus Hall

8540/1 HYPOTYPE Rhynchonella abrupta Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 68.

Uncinulus abruptus Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 15.

Helderbergian — The Helderberg, N. Y.

8540/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 17, 18.

8540/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 19.

Helderbergian — The Helderberg, N. Y.

Uncinulus mutabilis Hall

8541/1 TYPE Rhynchonella mutabilis Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 66, fig. 6.

Hall. Paleontology of New York. 1859. v. 3, pl. 30, fig. 2p.

Helderbergian — Schoharie N. Y.

Uncinulus nobilis Hall

8542/1 TYPE Rhynchonella nobilis Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 81, fig. 1.

Helderbergian — Schoharie N. Y.

8542/2 TYPE Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 81, fig 2.

Helderbergian — Schoharie N. Y.

VITULINA Hall

Vitulina pustulosa Hall

8550/1 HYPOTYPE Vitulina pustulosa Hall. 13th annual report of the New York state cabinet of natural history. 1850. p. 82.

Hall. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 10.

Hamilton shales — Canandaigua lake, N. Y.

8550/2 HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 12.

Middle Devonic — Ereré, Brazil

2148 $\frac{8550}{3}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl 82, fig. 13.
Middle Devonic — Ereré, Brazil

2149 $\frac{8550}{4}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 18.
Hamilton shales — Canandaigua lake, N. Y.

2150 $\frac{8550}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 23.
Hamilton shales — Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

2151 $\frac{8550}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 82, fig. 24.
Hamilton shales — Canandaigua lake, N. Y.

Waldheimia deweyi *see* Parazyga deweyi

Waldheimia formosa *see* Rhynchospira formosa

WHITFIELDELLA Hall & Clarke

Whitfieldella intermedia Hall

2152 $\frac{8560}{1}$ HYPOTYPE Atrypa intermedia Hall. Paleontology of New York. 1852. 2:77.
Whitfieldella intermedia Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 1.
Clinton beds — Hamilton Ont.

2153 $\frac{8560}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 2.
Clinton beds — Hamilton Ont.

Whitfieldella *cf.* laevis Whitfield (sp.)

2154 $\frac{8561}{1}$ HYPOTYPE: HYPOPLASTOTYPE Meristella laevis Whitfield. Annals of the New York academy of sciences. 1882. 2:195.
Whitfieldella cf. laevis Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 4a–4c.
Manlius limestone — Erie county, N. Y.
A. W. Grabau, coll.

2155 $\frac{8561}{2}$ HYPOPLASTOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 4d.
Manlius limestone — Erie county, N. Y.
A. W. Grabau, coll.

Whitfieldella (?) naviformis Hall

6 $\frac{8562}{1}$ HYPOTYPE Atrypa naviformis Hall. Geology of New York; report on the 4th district. 1843. p. 72.
Whitfieldella (?) naviformis Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 3.
Clinton beds Western New York

Whitfieldella nitida Hall

7 $\frac{8563}{1}$ HYPOTYPE Atrypa nitida Hall. Geology of New York; report on the 4th district. 1843. Explanation table 14 [13].
Meristina nitida Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 6, 6a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

8 $\frac{8563}{2}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 7, 7a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

9 $\frac{8563}{3}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 8, 8a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

0 $\frac{8563}{4}$ HYPOTYPE Beecher & Clarke. New York state museum memoir 1. 1889. pl. 7, fig. 10, 10a.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

1 $\frac{8563}{5}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 40, fig. 6.
Niagaran Waldron Ind.

Whitfieldella (?) nucleolata Hall

2 $\frac{8564}{1}$ TYPE Atrypa nucleolata Hall. Paleontology of New York. 1852. 2:328, pl. 74, fig. 10a, 10d.
Coralline (Cobleskill) limestone Schoharie N. Y.

3 $\frac{8564}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 47, fig. 10b, 10e.
Coralline (Cobleskill) limestone Schoharie N. Y.

$\frac{8564}{3}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 10g, 10h.
Coralline (Cobleskill) limestone Schoharie N. Y.

2165 $\frac{8564}{4}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 74, fig. 101, 10k, 10l.
Coralline (Cobleskill) limestone Schoharie N. Y.

Whitfieldella *cf.* rotundata Whitfield (sp)

2166 $\frac{8565}{1}$ HYPOTYPE Nucleospira rotundata Whitfield. Annals of the New York academy of sciences. 1882. 2: 194.
Whitfieldella cf. rotundata Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 3a, 3b.
Manlius limestone Akron, Erie co. N. Y.
A. W. Grabau, coll.

Whitfieldella sulcata Vanuxem (sp.)

2167 $\frac{8566}{1}$ HYPOTYPE Atrypa sulcata Vanuxem. Geological survey of New York; report on the 3d district. 1842. p. 112.
Whitfieldella sulcata Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 2a.
Manlius limestone Erie county, N. Y.
A. W. Grabau, coll.

2168 $\frac{8566}{2}$ HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 2b.
Manlius limestone Erie county, N. Y.
A. W. Grabau, coll.

2169 $\frac{8566}{3}$ HYPOPLASTOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 2c, 2d.
Manlius limestone Erie county, N. Y.
A. W. Grabau, coll.

WILSONIA Kayser

Wilsonia ventricosa Hall

2170 $\frac{8580}{1}$ TYPE Rhynchonella ventricosa Hall. 10th annual report of the New York state cabinet of natural history. 1857. p. 79, fig. 1–3, 6.
Helderbergian Schoharie N. Y.

2171 $\frac{8580}{2}$ HYPOTYPE Wilsonia ventricosa Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 58, fig. 14.
Helderbergian Schoharie county, N. Y.

ZYGOSPIRA Hall

Zygospira (Orthonomaea) erratica Hall

8590/1 HYPOTYPE: HYPOPLASTOTYPE Orthis? erratica Hall. Paleontology of New York. 1847. 1: 288.

Zygospira (Orthonomaea) erratica Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, pl. 54, fig. 22.

Lorraine beds — Drift block of central New York

Zygospira minima Hall

8591/1 TYPE Zygospira minima Hall. Descriptions of new species of fossils from Waldron, Indiana. 1879. p. 14.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 7.

Niagaran — Waldron Ind.

Zygospira modesta (Say) Hall

8592/1 HYPOTYPE Atrypa modesta (Say) Hall. Paleontology of New York. 1847. 1: 141.

Zygospira modesta Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 155, fig. 148.

Cincinnatian — Cincinnati O.

8592/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1894. v. 8, pt 2, p. 155, fig. 149.

Cincinnatian — Cincinnati O.

LAMELLIBRANCHIATA

ACTINOPTERIA Hall

Actinopteria auriculata Hall

9000/1 TYPE Actinopteria auriculata Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig. 15.

Chemung beds — Lawrenceville, Tioga co. Pa. A. Sherwood, coll. 1871

Actinopteria boydi Conrad (sp.)

9001/1 HYPOTYPE: HYPOPLASTOTYPE Avicula boydi Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:237.

Actinopteria boydi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 7.

Hamilton beds — Fultonham, Schoharie co. N. Y. W. M. Gabb, coll. 1857

2178 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 12; pl. 84, fig. 17.

Hamilton beds — Hamilton, Madison co. N. Y. J. Hall, coll. 1862

2179 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 18.

Hamilton beds — Pratt's falls, Onondaga co. N. Y. G. B. Simpson, coll. 1863

2180 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 19.

Hamilton beds — Pratt's falls, N. Y. G. B. Simpson, coll. 1863

2181 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 20.

Hamilton beds — Pratt's falls, N. Y. G. B. Simpson, coll. 1863

2182 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 22.

Hamilton beds — Delphi, Onondaga co. N. Y. G. B. Simpson, coll. 1863

2183 $\frac{2001}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 23.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 23.

Hamilton beds — Delphi N. Y. G. B. Simpson, coll. 1863

4 $\frac{2001}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 27.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 27.

Hamilton beds — Cazenovia N. Y.
J. Hall, coll. 1862

Actinopteria communis Hall (sp.)

5 $\frac{2002}{1}$ HYPOTYPE: HYPOPLASTOTYPE Avicula communis Hall. Paleontology of New York. 1859. 3:286.

Actinopteria communis Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 1.

Oriskanian — Becraft mountain, Hudson N. Y.

5 $\frac{2002}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 2.

Oriskanian — Becraft mountain, Hudson N. Y.

Actinopteria decussata Hall

7 $\frac{2003}{1}$ HYPOTYPE Avicula decussata Hall. Geology of New York; report on the 4th district. 1843. p. 203.

Actinopteria decussata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 24.

Hamilton beds — Dresden, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

8 $\frac{2003}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 28.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 28.

Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{2003}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 2, 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 2, 9.

Hamilton beds — York N. Y.
C. A. White and C. Van Deloo, coll. 1860

2190 $\frac{2003}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 3.
Hamilton beds Geneseo, Livingston co. N. Y.

2191 $\frac{2003}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 4, 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 4, 6.
Hamilton beds Canandaigua lake, N. Y.

2192 $\frac{2003}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 5.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 5.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1886

2193 $\frac{2003}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 11.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 11.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1886

2194 $\frac{2003}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 18, fig. 15.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 18, fig. 15.
Hamilton beds York N. Y.
C. A. White and C. Van Deloo, coll. 1886

Actinopteria delta Hall

2195 $\frac{2004}{1}$ TYPE Actinopteria delta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 3.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1886

Actinopteria epsilon Hall

2196 $\frac{2005}{1}$ TYPE Actinopteria epsilon Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 4.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

7 $\frac{2005}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig 8.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria eschwegii Clarke

8 $\frac{2006}{1}$ TYPE Actinopteria eschwegii Clarke. Archivos do Museu nacional do Rio de Janeiro. 1899. 10:45, pl. 5, fig. 9.

Maecurú sandstone (Lower Devonic) Rio Maecurú, Pará Brazil

O. A. Derby, F. J. de Freitas and H. H. Smith, coll. 1876

Actinopteria eta Hall

9 $\frac{2007}{1}$ TYPE Actinopteria eta Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 124, pl. 84, fig 9.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria insignis Clarke

0 $\frac{2008}{1}$ TYPE Actinopteria insignis Clarke. New York state museum memoir 3. 1900. p. 35, pl. 4, fig. 10.

Oriskanian Becraft mountain, Hudson N. Y.

1 $\frac{2008}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 11.

Oriskanian Becraft mountain, Hudson N. Y.

2 $\frac{2008}{3}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 12.

Oriskanian Becraft mountain, Hudson N. Y.

3 $\frac{2008}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 13.

Oriskanian Becraft mountain, Hudson N. Y.

Actinopteria iota Hall

4 $\frac{2009}{1}$ TYPE Actinopteria iota Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 127, pl. 84, fig. 7.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria manticula Conrad (sp.)

2205 $\frac{2010}{1}$ HYPOTYPE Avicula manticula Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 241.

Hall. Paleontology of New York. 1859. v. 3, pl. 51, fig. 7.

Coeymans limestone Schoharie N. Y.

2206 $\frac{2010}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 51, fig. 8.

Coeymans limestone Schoharie N. Y.

Actinopteria muricata Hall

2207 $\frac{2011}{1}$ HYPOTYPE Avicula muricata Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Actinopteria muricata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 1.

Marcellus shale Littleville, near West Avon, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

2208 $\frac{2011}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 2.

Marcellus shale Littleville, near West Avon N. Y.

C. A. White and C. Van Deloo, coll. 1860

2209 $\frac{2011}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 3.

Marcellus shale Littleville, near West Avon, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Actinopteria obliquata Hall

2210 $\frac{2012}{1}$ TYPE Avicula obliquata Hall. Paleontology of New York. 1859. 3: 285, pl. 51, fig. 9.

Coeymans limestone Schoharie N. Y.

PE Hall. Paleontology of New York. 1859. v. 3, fig. 10.

mans limestone Schoharie N. Y.

Actinopteria pauciradiata Hall

9013/1 TYPE Avicula pauciradiata Hall. Paleontology of New York. 1859. 3: 287, pl. 52, fig. 8.

New Scotland beds Schoharie N. Y.

Actinopteria perstrialis Hall

9014/1 TYPE Actinopteria perstrialis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 2.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

9014/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 7.

Portage (Ithaca) beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Actinopteria pusilla Hall

9015/1 TYPE Actinopteria pusilla Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 117, pl. 84, fig. 3.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Actinopteria subdecussata Hall

9016/1 TYPE Pteronites subdecussata Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p 202.

Actinopteria subdecussata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 23.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 23.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

9016/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 25.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

2218 $\frac{2016}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 26.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

2219 $\frac{2016}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 27.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

2220 $\frac{2016}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 29.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 29.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2221 $\frac{2016}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 30.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

2222 $\frac{2016}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 31.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 31.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Actinopteria textilis Hall (sp.)

2223 $\frac{2017}{1}$ TYPE Avicula textilis Hall. Paleontology of New York. 1859. 3: 288, pl. 52, fig. 10.
New Scotland beds Schoharie N. Y.

2224 $\frac{2017}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 2.
New Scotland beds Schoharie N. Y.

2225 $\frac{2017}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 7.
New Scotland beds Schoharie N. Y.

$\frac{2017}{4}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 53, fig. 10.
New Scotland beds Schoharie N. Y.

Actinopteria textilis *var.* arenaria Hall

$\frac{2018}{1}$ TYPE Avicula textilis var. arenaria Hall. Paleontology of New York. 1859. 3: 465, pl. 109, fig. 2.
Oriskanian Schoharie N. Y.

$\frac{2018}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 110, fig. 2.
Oriskanian Schoharie N. Y.

Actinopteria zeta Hall

$\frac{2019}{1}$ TYPE Actinopteria zeta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 9.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 9.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

ALLOCARDIUM Hall

Allocardium alternatum Hall

$\frac{2030}{1}$ TYPE Allocardium alternatum Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 15.
Hamilton shale Cayuga lake, N. Y.
H. H. Smith, coll. 1871

AMBONYCHIA Hall

Ambonychia acutirostra *see* Mytilarca acutirostra

Ambonychia amygdalina Hall

$\frac{2040}{1}$ PLASTOTYPE Ambonychia amygdalina Hall. Paleontology of New York. 1847. 1: 165, pl. 36, fig. 6a, 6c.
Trenton limestone Adams, Jefferson co. N. Y.

Ambonychia bellistriata Hall

$\frac{2041}{1}$ PLASTOTYPE Ambonychia bellistriata Hall Paleontology of New York. 1847. 1: 163, pl. 36, fig. 4b, 4c.
Trenton limestone Middleville, Herkimer co. N. Y.

Ambonychia obtusa *see* Cyrtodonta obtusa

Ambonychia orbicularis Emmons (sp.)

2233 $\frac{2042}{1}$ HYPOTYPE Pterinea orbicularis Emmon
Geology of New York; report on the 2d district. 184
p. 395.

Ambonychia orbicularis Hall. Paleontolo
of New York. 1847. v. 1, pl. 36, fig. 5a.

Trenton limestone Watertown N.

Ambonychia undata *see* Clionychia undata

Avicula aequiradiata *see* Aviculopecten aequir
diatus

Avicula bella *see* Aviculopecten bellus

Avicula bellula *see* Aviculopecten bellulus

Avicula boydi *see* Aviculopecten boydi

Avicula chemungensis *see* Liopteria chemung
ensis

Avicula chemungensis *see* Pterinea chemung
ensis

Avicula communis *see* Actinopteria communis

Avicula decussata *see* Actinopteria decussata

Avicula erecta *see* Glyptodesma erectum

Avicula flabella *see* Pterinea flabellum

Avicula fragilis *see* Lunulicardium fragile

Avicula gebhardi *see* Aviculopecten gebhardi

Avicula laevis *see* Liopteria laevis

Avicula limaeformis *see* Limoptera? limaeform

Avicula longispina *see* Leptodesma longispin

Avicula manticula *see* Aviculopecten mantic
ulus

Avicula muricata *see* Aviculopecten murica

Avicula naviformis *see* Pterinea naviformis

Avicula obliquata *see* Aviculopecten obliqu

Avicula obscura *see* Pterinopecten (?) obsc

Avicula orbiculatus *see* Lyriopecten orbicula

Avicula pauciradiata *see* Aviculopecten pa
radiatus

Avicula schohariae *see* Aviculopecten schoha

Avicula securiformis *see* Pterinea halli

Avicula securiformis *see* Pterinea securi

Avicula nigera *see* Leptodesma spinige

Avicula subaequilatera *see* Pterinopecten (?) subaequilaterus

Avicula textilis *see* Actinopteria textilis

Avicula textilis *see* Actinopteria textilis *var.* arenaria

Avicula tricostata *see* Lyriopecten tricostatus

AVICULOPECTEN McCoy

Aviculopecten aequiradiatus Hall (sp.)

2050/1 TYPE Avicula equiradiata Hall. Paleontology of New York. 1859. 3: 285, pl. 51, fig. 11.

New Scotland beds Schoharie N. Y.

Aviculopecten bellulus Hall (sp.)

2051/1 TYPE Avicula bellula Hall. Paleontology of New York. 1859. 3: 289, pl. 53, fig. 9.

New Scotland beds Schoharie N. Y.

Aviculopecten bellus Conrad (sp.)

2052/1 HYPOTYPE Avicula bella Conrad. Annual report of the New York state geological survey. 1841. p. 54.

Aviculopecten bellus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 9.

Hamilton shales Bellona, Yates co. N. Y.

C. Van Deloo and C. A. White, coll. 1860

2052/2 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 8.

Hamilton shales Cayuga lake, N. Y.

H. H. Smith, coll. 1871

Aviculopecten cancellatus Hall

2053/1 HYPOTYPE Pecten cancellatus Hall. Geology of New York; report on the 4th district. 1843. p. 265.

Aviculopecten subcancellatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 14, 15.

Aviculopecten cancellatus Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 14, 15.

Chemung (?) beds Conewango, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

2239 $\frac{9053}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 17.
Chemung (?) beds — Conewango N. Y.
C. Van Deloo, coll. 1863

Aviculopecten celsus Hall

2240 $\frac{9054}{1}$ TYPE Aviculopecten celsus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 29, 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 29, 30.
Chemung beds — Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Aviculopecten cleon Hall

2241 $\frac{9055}{1}$ TYPE Aviculopecten cleon Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 1.
Onondaga limestone — Columbus O.
R. P. Whitfield, coll. 1865

Aviculopecten duplicatus Hall

2242 $\frac{9056}{1}$ HYPOTYPE Pecten duplicatus Hall. Geology of New York; report on the 4th district. 1843. p. 264.
Aviculopecten duplicatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 6.
Chemung (?) beds — Conewango N. Y.
C. Van Deloo, coll. 1863

2243 $\frac{9056}{2}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 9.
Chemung beds — Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1878

2244 $\frac{9056}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 10.
Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1878

Aviculopecten ellipticus Hall

9057/1 TYPE Aviculopecten ellipticus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 31.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 31.

Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

Aviculopecten exacutus Hall

9058/1 TYPE: PLASTOTYPE Aviculopecten exacutus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 18.

Hall. Paleontology of New York. 1884. v. 1, pt 1, pl. 3, fig. 18.

Hamilton beds — Hamburg, Erie co. N. Y.
C. A. White, coll. 1860

9058/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 19.

Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

9058/3 TYPE Hall. Paleontology of New York. 1883. v.5, pt 1, plates and explanations, pl. 3, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 20.

Hamilton beds — Hamburg N. Y.
C. Van Deloo, coll. 1864

9058/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 22.

Hamilton beds — Hamburg N. Y.
C. A. White, coll. 1860

Aviculopecten fasciculatus Hall

9059/1 TYPE Aviculopecten orestes Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 11.

Aviculopecten fasciculatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 11, pl. 5, fig. 11; pl. 81, fig. 3.

Hamilton beds — Seneca Castle, Ontario co. N. Y. C. A. White, coll. 1861

2251 $\frac{2059}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 12.

Hamilton beds — Pratt's falls, Onondaga co. N. Y. G. B. Simpson, coll.

2252 $\frac{2059}{3}$ TYPE Aviculopecten repletus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 13.

Hamilton beds — Western New York

2253 $\frac{2059}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 1.

Hamilton beds — Near Clarksville, Albany co. N. Y. J. W. Hall, coll. 1878

2254 $\frac{2059}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 2.

Hamilton beds — Near Clarksville N. Y. J. W. Hall, coll. 1878

2255 $\frac{2059}{6}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 81, fig. 4.

Hamilton beds — Near Clarksville N. Y. J. W. Hall, coll. 1878

Aviculopecten gebhardi (Conrad) Hall

2256 $\frac{2060}{1}$ TYPE Avicula gebhardi Conrad. Annual report on the paleontology of New York. 1841. p. 54.

Hall. Paleontology of New York. 1859. v. 3, pl. 110, fig. 1a.

Oriskanian — Schoharie N. Y.

2257 $\frac{2060}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 111, fig. 2.

Oriskanian — Schoharie N. Y.

Aviculopecten idas Hall

2258 $\frac{2061}{1}$ TYPE Aviculopecten idas Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, p. 3, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 1.

Hamilton beds — Fultonham, Schoharie co. N. Y. W. M. Gabb, coll. 1857

2061/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 2.

Hamilton beds — Darien, Genesee co. N. Y. C. Van Deloo, coll. 1864

2061/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 4.

Hamilton beds — Cayuga lake, N. Y. H. H. Smith, coll. 1871

Aviculopecten (Crenipecten?) incultus Hall

2062/1 TYPE Aviculopecten (Crenipecten?) incultus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 3.

Chemung (?) conglomerate — Olean, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Aviculopecten insignis Hall

2063/1 TYPE Aviculopecten insignis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 8.

Hamilton beds — Stafford, Genesee co. N. Y.

2063/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 13.

Hamilton beds — Hamburg, Erie co. N. Y. C. A. White, coll. 1860

Aviculopecten (Pterinopecten?) invalidus Hall

2064/1 TYPE Aviculopecten (Pterinopecten?) invalidus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 18; pl. 82, fig. 21.

Marcellus shale Cherry Valley, Otsego co. N. Y.

Aviculopecten itys Hall

2265 $\frac{9065}{1}$ TYPE Aviculopecten itys Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 13.

Chemung (?) beds Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Aviculopecten lautus Hall

2266 $\frac{9066}{1}$ TYPE: PLASTOTYPE Aviculopecten lautus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 16.

Hamilton beds West Bloomfield, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aviculopecten mucronatus Hall

2267 $\frac{9067}{1}$ TYPE Aviculopecten mucronatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 15.

Hamilton beds Dresden, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Aviculopecten orestes *see* Aviculopecten fasciculatus

Aviculopecten ornatus Hall

2268 $\frac{9068}{1}$ TYPE Aviculopecten ornatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 7.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Hall. Paleontology of New York. 1883. v. 5, and explanations, pl. 2, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 8.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

9068/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 14.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

Aviculopecten patulus Hall

9069/1 TYPE: PLASTOTYPE Aviculopecten patulus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 32.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 32.

Chemung (?) conglomerate Salamanca N. Y.
R. P. Whitfield, coll. 1869

9069/2 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 33.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 33.

Chemung (?) conglomerate Salamanca N. Y.
R. P. Whitfield, coll. 1869

Aviculopecten plenus Hall

9070/1 TYPE Aviculopecten plenus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 3.

Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

Aviculopecten princeps Conrad (sp.)

9071/1 HYPOTYPE Monotis princeps Conrad. Annual report of the New York state geological survey. 1838. p. 117.

Aviculopecten princeps Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 18, 19.

2290 $\frac{2073}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 3, fig. 10, 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 3, fig. 10, 11.

Hamilton beds Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Aviculopecten schohariae Hall (sp.)

2291 $\frac{2074}{1}$ TYPE Avicula schohariae Hall. Paleontology of New York. 1859. 3:283, pl. 51, fig. 5.

New Scotland beds Schoharie N. Y.

Aviculopecten subcancellatus *see* Aviculopecten cancellatus

Aviculopecten tenuis Hall

2292 $\frac{2075}{1}$ TYPE Aviculopecten tenuis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 27.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 7, fig. 27

Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1865

2293 $\frac{2075}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 7, fig. 28.

Hall. Paleontology of New York. 1884. v. 5, pt 1 pl. 7, fig. 28; pl. 81, fig. 6.

Chemung beds Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Aviculopecten undulatus *see* Pterinopecten undosus

BYSSOPTERIA Hall

Byssopteria radiata Hall

2294 $\frac{2000}{1}$ TYPE Mytilarca radiata Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 197.

Byssopteria radiata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 11.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1875

? dichotoma *see* Panenka dichotoma

elevata *see* Panenka ventricosa

9103/3 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 14.
Hamilton beds — Hamilton N. Y.

Cimitaria recurva *see* Cimitaria angulata

CLIDOPHORUS Hall

Clidophorus planulatus (Conrad) Hall

9110/1 TYPE Nuculites planulata Conrad. Annual report of the New York state geological survey. 1841. p. 48.
Cleidophorus planulatus Hall. Paleontology of New York. 1847. v. 1, pl. 82, fig. 9a.
Lorraine beds — Turin, Lewis co. N. Y.

CLINOPISTHA Meek & Worthen

Clinopistha telliniformis Hall

9120/1 TYPE Dystactella telliniformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 28, 29.
Clinopistha telliniformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 28, 29.
Onondaga limestone — Cayuga Ont.
J. De Cew, coll. 1866

9120/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 30.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 30.
Onondaga limestone — Cayuga Ont.
J. De Cew, coll. 1866

CLIONYCHIA Ulrich

Clionychia undata Emmons (sp.)

9130/1 HYPOTYPE Pterinea undata Emmons. Geology of New York; report on the 2d district. 1842. p. 395.
Ambonychia undata Hall. Paleontology of New York. 1847. v. 1, pl. 36, fig. 7a, 7b.
Trenton limestone — Watertown N. Y.

2298 $\frac{21}{3}\frac{01}{}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 3.

Hamilton beds Sherburne, Chenango co. N. Y.

Cimitaria elongata (Conrad) Hall

2299 $\frac{21}{1}\frac{02}{}$ TYPE Cypricardites elongatus Conrad. Annual report of the New York state geological survey. 1841. p. 51.

Cimitaria elongata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 6.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2300 $\frac{21}{2}\frac{02}{}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 7.

Hamilton beds Pratt's falls, N. Y.
G. B. Simpson, coll. 1863

Cimitaria recurva Conrad (sp.)

2301 $\frac{21}{1}\frac{03}{}$ HYPOTYPE Cypricardites recurva Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:245.

Cimitaria recurv Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 9.

Hamilton beds Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2302 $\frac{21}{2}\frac{03}{}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 10.

Hamilton beds Hamilton, Madison co. N. Y.

9103/3 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 77, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 77, fig. 14.

Hamilton beds — Hamilton N. Y.

Cimitaria recurva *see* Cimitaria angulata

CLIDOPHORUS Hall

Clidophorus planulatus (Conrad) Hall

9110/1 TYPE Nuculites planulata Conrad. Annual report of the New York state geological survey. 1841. p. 48.

Cleidophorus planulatus Hall. Paleontology of New York. 1847. v. 1, pl. 82, fig. 9a.

Lorraine beds — Turin, Lewis co. N. Y.

CLINOPISTHA Meek & Worthen

Clinopistha telliniformis Hall

9120/1 TYPE Dystactella telliniformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 28, 29.

Clinopistha telliniformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 28, 29.

Onondaga limestone — Cayuga Ont.

J. De Cew, coll. 1866

9120/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 30.

Onondaga limestone — Cayuga Ont.

J. De Cew, coll. 1866

CLIONYCHIA Ulrich

Clionychia undata Emmons (sp.)

9130/1 HYPOTYPE Pterinea undata Emmons. Geology of New York; report on the 2d district. 1842. p. 395.

Ambonychia undata Hall. Paleontology of New York. 1847. v. 1, pl. 36, fig. 7a, 7b.

Trenton limestone — Watertown N. Y.

CONOCARDIUM Bronn

Conocardium attenuatum *see* Conocardium cuneus *var.* attenuatum

Conocardium cuneus (Conrad) Hall

2308 $\frac{9140}{1}$ TYPE Pleurorhynchus cuneus Conrad. Annual report of the New York state geological survey. 1840. p. 206.

Conocardium cuneus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 21, 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 21, 22.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase, 1872

2309 $\frac{9140}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 23.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

2310 $\frac{9140}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 25.

Schoharie grit — Knox N. Y.
C. Van Deloo, coll. 1862

2311 $\frac{9140}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 26.

Schoharie grit — Near Clarksville N. Y.
C. Van Deloo, coll. 1862

2312 $\frac{9140}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 27.

Schoharie grit — Near Clarksville N. Y.

9142/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 14, 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 14, 15.

Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase, 1872

9142/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 67, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 67, fig. 17.

Schoharie grit — Schoharie N. Y.

Conocardium cuneus *var.* trigonale Hall

9143/1 HYPOTYPE Pleurorhynchus trigonalis Hall. Geology of New York; report on the 4th district. 1843. p. 171.

Conocardium trigonale? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 1.

Conocardium cuneus var. trigonale Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 410, pl. 68, fig. 1.

Onondaga limestone — Williamsville N. Y.

Conocardium inceptum Hall

9144/1 HYPOTYPE Conocardium inceptum Hall. Paleontology of New York. 1859. 3:491.

Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 21.

Oriskanian — Becraft mountain, Hudson N. Y.

9144/2 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 22.

Oriskanian — Becraft mountain, Hudson N. Y.

9144/3 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 23.

Oriskanian — Becraft mountain, Hudson N. Y.

Conocardium liratum Hall

9145/1 TYPE: PLASTOTYPE Conocardium liratum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 68, fig. 28.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 68, fig. 29.

2332 $\frac{9145}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 68, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 68, fig. 29.

Ithaca beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 68, fig. 28.

Conocardium nasutum *see* Conocardium cuneus *var.* nasutum

Conocardium trigonale? *see* Conocardium cuneus *var.* trigonale

CRENIPECTEN Hall

Crenipecten amplus Hall

2333 $\frac{9150}{1}$ TYPE Crenipecten amplus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 9.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

2334 $\frac{9150}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 13.

Chemung beds Rockville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

Crenipecten crenulatus Hall

2335 $\frac{9151}{1}$ HYPOTYPE Pecten? crenulatus Hall. Geology of New York; report on the 4th district. 1843. p. 265.

Crenipecten crenulatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 6.

Chemung beds Rockville, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

$\frac{9151}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 15.

Chemung beds Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

Crenipecten glaber (?) Hall

$\frac{9152}{1}$ HYPOTYPE Lima glaber Hall. Geology of New York; report on the 4th district. 1843. p. 255.

Crenipecten glaber (?) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 22.

Chemung beds Rockville, Allegany co. N. Y.
R. P. Whitfield and C Van Deloo, coll. 1869

Crenipecten impolitus Hall

$\frac{9153}{1}$ TYPE Crenipecten impolitus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 14.

Hall. Paleontology of New York 1884. v. 5, pt 1, pl. 9, fig. 14

Chemung (?) conglomerate Olean, Allegany co. N. Y.
C. Van Deloo, coll. 1863

$\frac{9153}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 10.

Chemung (?) conglomerate Olean N. Y.
C. Van Deloo, coll. 1863

Crenipecten liratus Hall

$\frac{9154}{1}$ TYPE Crenipecten liratus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 9, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 9, fig. 24; pl. 83, fig. 9.

Chemung beds East Randolph, Cattaraugus co. N. Y.

Cucullea opima *see* Nucula opima

Cypricardia contracta *see* Sphenotus contractus

Cypricardia? rhombea *see* Schizodus rhombeus

CYPRICARDINIA Hall

Cypricardinia arcuata Hall

2341 $\frac{91}{1}60$ TYPE Cypricardinia indenta (Conrad) Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 17.

Cypricardinia arcuata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 486, pl. 79, fig. 17.

Chemung beds — Elmira N. Y.

C. Van Deloo, coll. 1870

Cypricardinia consimilis? Hall

2342 $\frac{91}{1}61$ TYPE? Cypricardinia indenta (Conrad) Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 18.

Cypricardinia consimilis? Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 486, pl. 79, fig. 18.

Waverly sandstone — Richfield Center, Summit co. O.

C. A. White, coll. 1861

Cypricardinia indenta Conrad (sp.)

2343 $\frac{91}{1}62$ HYPOTYPE Cypricardites indenta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 244.

Cypricardinia indenta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 6.

Onondaga limestone — Babcock hill, Oneida co. N. Y.

2344 $\frac{91}{2}62$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 7; pl. 96, fig. 2.

Onondaga limestone — Babcock hill, N. Y.

2345 $\frac{91}{3}62$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 8.

Onondaga limestone — Babcock hill, N. Y.

TYPE Hall. Paleontology of New York. 1883. ates and explanations, pl. 79, fig. 14.

Hall, Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 14.

Hamilton beds Vincent, Ontario co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

47 $\frac{9162}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 15.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

48 $\frac{9162}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 16.

Hamilton beds Owasco lake, N. Y.

G. B. Simpson, coll. 1863

49 $\frac{9162}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 23.

Hamilton shales Moscow N. Y.

C. A. White and C. Van Deloo, coll. 1860

Cypricardinia indenta *see* Cypricardinia arcuata

Cypricardinia indenta *see* Cypricardinia consimilis?

Cypricardinia lamellosa Hall

350 $\frac{9163}{1}$ HYPOTYPE Cypricardinia lamellosa Hall. Paleontology of New York. 1859. 3 : 266.

Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 18.

Oriskanian Becraft mountain, Hudson N. Y.

351 $\frac{9163}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 19.

Oriskanian Becraft mountain, Hudson N. Y.

352 $\frac{9163}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 20.

Oriskanian Becraft mountain, Hudson N. Y.

Cypricardinia planulata Conrad (sp.)

2353 $\frac{9164}{1}$ HYPOTYPE Pterinea planulata Conrad. Journal of the academy of natural sciences of Philadelphia. 1842, 8: 251.

Cypricardinia planulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations pl. 79, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 2.

Schoharie grit Schoharie N. Y.

2354 $\frac{9164}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 3.

Schoharie grit Schoharie N. Y.

Cypricardites alta *see* Modiomorpha alta

Cypricardites chemungensis *see* Goniophora chemungensis

Cypricardites corrugata *see* Cimitaria corrugata

Cypricardites elongatus *see* Cimitaria elongata

Cypricardites indenta *see* Cypricardinia indenta

Cypricardites marcellensis *see* Lunulicardium marcellense

Cypricardites mytiloides *see* Modiomorpha mytiloides

Cypricardites nasuta *see* Orthodesma nasutum

Cypricardites recurva *see* Cimitaria recurva

Cypricardites rugosa *see* Goniophora rugosa

Cypricardites sectifrons *see* Phthonia sectifrons

Cypricardites sinuata *see* Modiolopsis sinuata

Cypricardites subalata *see* Modiomorpha subalata

Cypricardites truncata *see* Sphenotus truncatus

Cucullaerodon (Schizodus) cuneus *see* Schiz-

Cytherodon (Schizodus) oblatus *see* Schizodus oblatus

Cytherodon (Schizodus) pauper *see* Paracyclas? paupera

Cytherodon (Schizodus) quadrangularis *see* Schizodus chemungensis *var.* quadrangularis

Cytherodon (Schizodus) rhombeus *see* Schizodus rhombeus

Cytherodon tumidus *see* Schizodus tumidus

Cytherodon (Schizodus) tumidus *see* Schizodus tumidus

CYRTODONTA Billings

Cyrtodonta obtusa Hall (sp.)

9170/1 PLASTOTYPE Ambonychia obtusa Hall. Paleontology of New York. 1847. 1 : 167, pl. 36, fig. 8a, 8b.

Trenton limestone — Watertown N. Y.

Dystactella telliniformis *see* Clinopistha telliniformis

ECTENODESMA Hall

Ectenodesma birostratum Hall

9180/1 TYPE Ectenodesma birostratum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 29.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 29.

Chemung beds — Franklin, Delaware co. N. Y.
Edward Orton, donor

EDMONDIA de Koninck

Edmondia burlingtonensis *see* Edmondia subovata

Edmondia burlingtonensis *see* Edmondia transversa

Edmondia obliqua Hall

9190/1 TYPE Edmondia philipi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 15.

Edmondia obliqua Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 388, pl. 64, fig. 15; pl. 95, fig. 6.

Chemung beds — Belvidere, Allegany co. N. Y.
R. P. Whitfield, coll. 1869

2358 $\frac{9}{2}\frac{1}{2}\frac{9}{9}$ TYPE Edmondia philipi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 16.

Edmondia obliqua Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 16.

Chemung beds Rockville, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

2359 $\frac{9}{3}\frac{1}{9}\frac{9}{9}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 5.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

2360 $\frac{9}{4}\frac{1}{9}\frac{9}{9}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 8.

Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Edmondia philipi Hall

2361 $\frac{9}{1}\frac{1}{9}\frac{9}{1}$ TYPE Edmondia philipi Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 90.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 9.

Chemung beds Belvidere, Allegany co. N. Y.
R. P. Whitfield, coll. 1869

2362 $\frac{9}{2}\frac{1}{9}\frac{9}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 11; pl. 95, fig. 2.

Chemung beds Belvidere N. Y.
R. P. Whitfield, coll. 1869

2363 $\frac{9}{3}\frac{1}{9}\frac{9}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 19 pl. 64, fig. 12; pl. 95, fig. 3.

Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863,

2364 $\frac{9}{4}\frac{1}{9}\frac{9}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 13.

ing beds Belvidere N. Y.
R. P. Whitfield, coll. 1869

$\frac{9191}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 17.

Chemung beds — Belvidere N. Y.
R. P. Whitfield, coll. 1869

Edmondia philipi *see* Edmondia obliqua

Edmondia philipi *see* Edmondia subovata

Edmondia rhomboidea Hall

$\frac{9192}{1}$ TYPE Edmondia rhomboidea Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 191.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 7.

Chemung (?) conglomerate — Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Edmondia subnasuta *see* Grammysia? subnasuta

Edmondia subovata Hall

$\frac{9193}{1}$ TYPE Edmondia philipi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 18.

Edmondia subovata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 389, pl. 64, fig. 18; pl. 95, fig. 11.

Chemung beds — Belvidere, N. Y.
R. P. Whitfield, coll. 1869

$\frac{9193}{2}$ TYPE Edmondia burlingtonensis (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 20; pl. 95, fig. 10.

Chemung beds — Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

$\frac{9193}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 26.

Chemung beds — Belvidere N. Y.
R. P. Whitfield, coll. 1869

2370 $\frac{9102}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 9.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

2371 $\frac{9102}{5}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 12.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Edmondia transversa Hall

2372 $\frac{9104}{1}$ TYPE Edmondia burlingtonensis (White & Whitfield) Hall (in part). Paleontology of New York, 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 24.
Edmondia transversa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 389, pl. 64, fig. 24.
Chemung beds Cold Spring, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Edmondia undata *see* Grammysia undata

Edmondia undulata *see* Sanguinolites (?) subtruncatus

Edmondia undulata *see* Sanguinolites (?) undulatus

ELYMELLA Hall

Elymella levata Hall

2373 $\frac{9210}{1}$ TYPE Elymella levata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 504; p. 562, figure.
Hamilton beds Jefferson, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

Elymella nuculoides Hall

2374 $\frac{9211}{1}$ TYPE Modiomorpha? hyalea Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 40, fig. 6.
Elymella nuculoides Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 503, pl. 40, fig. 6.
Hamilton beds Cooperstown, Otsego co. N. Y.
C. Van Deloo, coll. 1864

2375 $\frac{9211}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 40, fig. 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 40, fig. 8.
Hamilton beds Ludlowville, Tompkins co. N. Y.
H. H. Smith, coll. 1871

FORDILLA Barrande

Fordilla troyensis Barrande

9220/1-5 TYPE (5 specimens) Bivalve of uncertain class, *gen. nov.?* Ford. American journal of science and arts, ser. 3. 1873. 6 : 139 (not figured).

Fordilla troyensis Barrande. Système Silurien du centre de la Bohême. 1881. v. 6, explanation of pl. 361. 5 specimens.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

GLOSSITES Hall

Glossites depressus Hall

9230/1 TYPE Modiomorpha? amygdalina (Winchell). Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 40, fig. 15.

Glossites depressus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 496, pl. 40, fig. 15.

Chemung beds — Elmira N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Glossites ellipticus Hall

9231/1 TYPE Glossites ellipticus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 498, pl. 96, fig. 8.

Chemung beds — Mansfield, Tioga co. Pa.

A. Sherwood, coll. 1871

Glossites lingualis Hall

9232/1 TYPE Glossites lingualis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 497, pl. 96, fig. 9

Chemung beds — Mansfield Pa.

A. Sherwood, coll. 1873

9232/2 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 96, fig. 10.

Chemung beds — Mansfield Pa.

A. Sherwood, coll. 1873

9232/3 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 96, fig. 11.

Chemung beds — Mansfield Pa.

A. Sherwood, coll. 1871

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2385 $\frac{2235}{1}$ TYPE G
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2386 $\frac{2236}{1}$ TYPE G
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2388 $\frac{2240}{1}$ HYPOTY
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2411 $\frac{9252}{2}$ TYPE Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 12.

Hamilton beds (drift) Apulia, Onondago co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

2412 $\frac{9252}{3}$ TYPE Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 13.

Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

2413 $\frac{9252}{4}$ TYPE Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 16.

Hamilton beds Schoharie county, N. Y.
J. Gebhard purchase, 1872

2414 $\frac{9252}{6}$ TYPE Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1 pl. 44, fig. 17.

Hamilton beds Madison county, N. Y.

Goniophora hamiltonensis Hall

2415 $\frac{9253}{1}$ TYPE Sanguinolites hamiltonensis Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 36.

Goniophora hamiltonensis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 12.

Hamilton beds Fultonham, Schoharie co. N. Y.
J. Hall, coll. 1844

2416 $\frac{9253}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 14.

Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

$\frac{9253}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 20.

Hamilton beds — Summit Corners N. Y.
C. Van Deloo, coll. 1862

Goniophora ida Hall

$\frac{9254}{1}$ TYPE Sanguinolites ida Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 43.

Goniophora ida Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 300, pl. 42, fig. 13.

Hamilton beds — Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{9254}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 20.

Hamilton beds — Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Goniophora perangulata Hall

$\frac{9255}{1}$ TYPE Sanguinolites perangulatus Hall. Preliminary notice lamellibranchiate shells, pt 2. 1870. p. 35.

Goniophora perangulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 1; pl. 42, fig. 2.

Schoharie grit — Schoharie N. Y.

$\frac{9255}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 2.

Schoharie grit — Schoharie N. Y.

$\frac{9255}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34, fig. 4–6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 34, fig. 4–6.

Schoharie grit — Schoharie N. Y

2423 $\frac{9256}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 1.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase, 1872

Goniophora rugosa Conrad (sp.)

2424 $\frac{9256}{1}$ TYPE Cypricardites rugosa Conrad. Annual report of the New York state geological survey. 1841. p. 53.
Goniophora rugosa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 297, pl. 42, fig. 8a.
Hamilton beds — Ludlowville, Cayuga co. N. Y.
G. B. Simpson, coll. 1872
On slab with type of Microdon bellistriatus, Pal. N. Y. v. 5, pt 1, pl. 42, fig. 8b.

2425 $\frac{9256}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 4.
Hamilton beds — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1850

2426 $\frac{9256}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 6.
Hamilton beds — Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

2427 $\frac{9256}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 43, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 43, fig. 7.
Hamilton beds — Schoharie county, N. Y.

Goniophora speciosa Hall

2428 $\frac{9257}{1}$ TYPE Goniophora speciosa Hall. Transactions of the Albany institute. 1879. 10:17 (abstract).
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 26, 27.
Niagaran — Waldron, Shelby co. Ind.

Goniophora subrecta Hall

2429 $\frac{9258}{1}$ TYPE Goniophora subrecta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 304, pl. 42, fig. 14.
Ithaca beds — Jefferson, Schoharie co. N. Y.
A. Sherwood, coll. 1873

9258/2 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 15.
Ithaca beds Charlotteville, Schoharie co. N. Y.
A. Sherwood, coll. 1871

9258/3 TYPE Goniophora chemungensis (Vanuxem) Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1. pl. 44, fig. 19.
Ithaca beds Franklin, Delaware county, N. Y.
J. Hall, coll. 1862

9258/4 TYPE Hall (in error). Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 44, fig. 21.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 21.
Ithaca beds Central New York

Goniophora trigona Hall

9259/1 TYPE Goniophora glabra Hall (error for *G. glaucus*), Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 9.
Goniophora trigona Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 302, pl. 42, fig. 12; pl. 44, fig. 9,
Ithaca beds Franklin, Delaware co. N. Y.
J. Hall, coll. 1862

Goniophora truncata Hall

9260/1 TYPE Goniophora truncata Hall. Paleontology o New York. 1883. v. 5, pt 1, plates and explanations pl. 44.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 9.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

9260/2 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 10.
Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1871

9260/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 44, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 44, fig. 4.
Hamilton beds Delphi, Onondaga co. N. Y
G. B. Simpson, coll. 186

GOSSELETTIA Barrois

Gosselettia triquetra (Conrad) Hall

2437 $\frac{9270}{1}$ TYPE Pterinea triqueter Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Gosselettia triquetra Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 11, 13, 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 11, 13, 14.

Hamilton beds Onondaga county, N. Y.

2438 $\frac{9270}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 12.

Hamilton beds Onondaga county, N. Y.

2439 $\frac{9270}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 15.

Hamilton beds Fultonham, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

2440 $\frac{9270}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 16.

Hamilton beds Fultonham N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

2441 $\frac{9270}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 12.

Hamilton beds Fultonham N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

GRAMMYSIA de Verneuil

Grammysia (sp.) Clarke

2442 $\frac{9280}{1}$ HYPOTYPE Grammysia (sp.) Clarke. Archivos do Museú nacional do Rio de Janeiro. 1899. 10: 68, pl. 7, fig. 5.

Maecurú sandstone (Lower Devonic) Rio Maecurú, Para, Brazil

O. A. Derby, F. J. de Freitas and H. H. Smith, coll. 1876

Grammysia alveata (Conrad) Hall

9281/1 TYPE Posidonia alveata Conrad. Annual report of the New York state geological survey. 1841. p. 53.

Grammysia alveata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 57, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 57, fig. 2.

Hamilton beds Madison county, N. Y.

9281/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 1.

Hamilton beds Leonardsville, Madison co. N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

9281/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 2, 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 2–4.

Hamilton beds Schoharie county, N. Y.

J. Gebhard purchase, 1872

9281/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 6.

Hamilton beds Leonardsville N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

9281/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 7.

Hamilton beds Leonardsville N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

9281/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 60, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 60, fig. 8.

Hamilton beds Leonardsville N. Y.

F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Grammysia arcuata (Conrad) Hall

2449 $\frac{2\,2\,3\,2}{1}$ TYPE Posidonia? arcuata Conrad. Annual report of the New York state geological survey. 1841. p. 53.

Grammysia (Leptodomus) arcuata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 1.

Grammysia arcuata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 1.

Hamilton beds — Fabius, Onondaga co. N. Y. G. B. Simpson, coll. 1863

2450 $\frac{2\,2\,3\,2}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 2.

Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 61, fig. 2.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

2451 $\frac{2\,2\,3\,2}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 3.

Hall. Paleontology of New York. 1885. v. 5. pt 1. pl. 61, fig. 3.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

2452 $\frac{2\,2\,3\,2}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5 pt 1, plates and explanations, pl. 61, fig. 4.

Hall. Paleontology of New York. 1885. v. 5. pt 1. pl. 61, fig. 4.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

2453 $\frac{2\,2\,3\,2}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 5.

Hall. Paleontology of New York. 1885. v. 5. pt 1. pl. 61, fig. 5.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

2454 $\frac{2\,2\,3\,2}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5. pt 1, plates and explanations, pl. 61, fig. 9.

Hall. Paleontology of New York. 1885. v. 5. pt 1. pl. 61, fig. 9.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

9282/7 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 27.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

Grammysia (Leptodomus?) arcuata *see* Grammysia arcuata

Grammysia bisulcata (Conrad) Hall

9283/1 TYPE Pterinea bisulcata Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Grammysia bisulcata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 1.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

9283/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 3.

Hamilton beds Western New York

9283/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 4.

Hamilton beds Summit, Schoharie co. N. Y.
J. Hall, coll. 1844

9283/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 5.

Hamilton beds Central New York

9283/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 6.

Hamilton beds Madison county, N. Y.

2461 $\frac{9283}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 13.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

2462 $\frac{9283}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig 14.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 14.
Hamilton beds Summit N. Y.
C. Van Deloo, coll. 1862

2463 $\frac{9283}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 54, fig. 15.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 54, fig. 15.
Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Grammysia circularis Hall

2464 $\frac{9284}{1}$ TYPE Grammysia circularis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 51.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 13.
Chemung beds Nichols, Tioga co. N. Y.

Grammysia communis Hall

2465 $\frac{9285}{1}$ TYPE Grammysia (Leptodomus?) hannibalensis (Shumard) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 24.
Grammysia communis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 378, pl. 61, fig. 24.
Chemung beds (drift) Belvidere, Allegany co. N. Y.
R. P. Whitfield, coll. 1869

2466 $\frac{9285}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 25.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 25.
Chemung beds (drift) Belvidere N. Y
R. P. Whitfield, coll. 1869

9285/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 26.

Chemung beds Southwestern N. Y.

9285/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 27.

Chemung beds Little Genesee, Allegany co. N. Y.
C. Van Deloo, coll. 1863

9285/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 28.

Chemung beds Near Little Genesee N. Y.
C. Van Deloo, coll. 1863

Grammysia constricta Hall

9286/1 TYPE Grammysia (Leptodomus?) constricta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 58.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 16.

Grammysia constricta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 16.

Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

9286/2 TYPE Hall. Paleontology of New York. 1883. v. 5 pt 1, plates and explanations, pl. 59, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1 pl. 59, fig. 18.

Hamilton beds Canandaigua lake N. Y.
C. A. White and C. Van Deloo, coll. 1860

9286/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 19.

Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

Grammysia (Leptodomus?) constricta *see* Grammysia constricta

Grammysia (Sphenomya) cuneata Hall

2473 $\frac{22871}{1}$ TYPE Grammysia (Sphenomya) cuneata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 1.

Hamilton beds — Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

2474 $\frac{22871}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 2.

Hamilton beds — Apulia, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

2475 $\frac{22871}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig 4, 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 4, 5.

Hamilton beds — Summit N. Y.
C. Van Deloo, coll. 1862

2476 $\frac{22871}{1}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 8.

Hamilton beds — Summit N. Y.
J. Hall, coll. 1844

2477 $\frac{22871}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 9.

Hamilton beds — Emmons, Otsego co. N. Y.
J. W. Hall, coll. 1869

2478 $\frac{22871}{6}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 19.

Hamilton beds — Pratt's falls, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

Grammysia elliptica Hall

2479 $\frac{22881}{1}$ TYPE? Grammysia elliptica Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 53.

? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 1.

? Hall Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 1.

Ithaca (or Lower Chemung) beds Near Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

9258/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 12.

Chemung beds Rockville, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

Grammysia eriopia Hall

9259/1 TYPE Cardiomorpha eriopia Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 92.

Grammysia eriopia Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 8.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

Grammysia globosa Hall

9200/1 TYPE Grammysia globosa Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 57.

Cardiomorpha cordatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 62, fig. 10, 13.

Grammysia globosa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 62, fig. 10, 13.

Hamilton beds Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Grammysia hannibalensis *see* Grammysia communis

Grammysia (Leptodomus?) hannibalensis *see* Grammysia communis

Grammysia lirata Hall

9201/1 TYPE Grammysia lirata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 57.

Hall. Paleontology of New York. 1883. v. 5, pt plates and explanations, pl. 59, fig. 6.

Hall, Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 6.

Hamilton beds Fultonham, Schoharie co. N Y.
W. M. Gabb, coll. 1857

2484 $\frac{02201}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 8.

Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2485 $\frac{02201}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 9.

Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

Grammysia magna Hall

2486 $\frac{02202}{1}$ TYPE Grammysia magna Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 56, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 56, fig. 4.

Hamilton beds Sherburne ? Chenango co. N. Y.

2487 $\frac{02202}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 56, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 56, fig. 7.

Hamilton beds Hamilton, Madison co. N. Y.
J. Hall, coll. 1844

2488 $\frac{02202}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 57, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 57, fig. 9.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Grammysia nodocostata Hall

92903/1 TYPE Grammysia nodocostata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 55, fig. 2–4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 55, fig. 2–4.

Hamilton beds — Madison county, N. Y.

92903/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 55, fig. 10, 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 55, fig. 10, 11.

Hamilton beds — Norton's landing, Cayuga lake, N. Y. J. W. Hall, coll. 1866

Grammysia obsoleta Hall

92904/1 TYPE Grammysia obsoleta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 26.

Hamilton beds — Pratt's falls, Onondaga co. N. Y G. B Simpson, coll. 1863.

Grammysia parallela *see* Pholadella parallela

Grammysia praecursor Hall

92905/1 TYPE Grammysia praecursor Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 54.

Grammmysia (Leptodomus?) praecursor Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 59, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 59, fig. 1.

Schoharie grit — Schoharie N. Y.

Grammysia (Leptodomus?) praecursor *see* Grammysia praecursor

Grammysia subarcuata Hall

92906/1 TYPE Grammysia subarcuata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 61.

Grammysia (Leptodomus?) subarcuata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 11.

Chemung beds Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

2494 $\frac{9296}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 18.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2495 $\frac{9296}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 19, 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 19, 22.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2496 $\frac{9296}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 61, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 61, fig. 20.

Ithaca beds ?

Grammysia (Leptodomus?) subarcuata *see* Grammysia subarcuata

Grammysia ? subnasuta Hall

2497 $\frac{9297}{1}$ TYPE Edmondia subnasuta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 5.

Grammysia ? subnasuta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 5.

Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 64, fig. 6.

2498 $\frac{9297}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 6.

Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 64, fig. 5.

Grammysia undata Hall

2298/1 TYPE Edmondia undata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 30.

Grammysia undata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 30.

Chemung beds Portville N. Y.
C. Van Deloo, coll. 1864

2298/2 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 21.

Chemung beds Portville N. Y.
C. Van Deloo, coll. 1864

Inoceramus chemungensis *see* Mytilarca (Plethomytilus) chemungensis

Inoceramus oviformis *see* Mytilarca (Plethomytilus) oviformis

LEDA Schumacher

Leda brevirostris Hall

2300/1 TYPE Leda? brevirostris Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 6.

Leda (Nuculana) brevirostris? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 40.

Leda brevirostris Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 40.

Chemung beds Franklin, Delaware co. N. Y.
J. Hall, coll. 1862

On slab with type of L. diversa, Pal. N. Y. v. 5, pt 1, pl. 47, fig. 36.

2300/2 TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 41.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 41.

Chemung beds Franklin N. Y.
J. Hall, coll. 1862

Leda (Nuculana) brevirostris? *see* Leda brevirostris

Leda (Nuculana) curta *see* Leda obscura

Leda diversa Hall

2503 $\frac{9301}{1}$ TYPE Leda (Nuculana) diversa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 32.

Leda diversa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 32.

Hamilton beds — Moravia, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

2504 $\frac{9301}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 33.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 33.

Hamilton beds — Moravia N. Y.
G. B. Simpson, coll. 1863

2505 $\frac{9301}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 34.

Hamilton beds — Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

2506 $\frac{9301}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 35.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 35.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2507 $\frac{9301}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 36.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 36.

Chemung beds — Franklin N. Y
J. Hall. coll. 1862

On slab with type of L. brevirostris, Pal. N. Y. v. 5, pt 1, pl. 47, fig. 40.

2508 $\frac{9301}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 37.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 37.

Chemung beds — Franklin N. Y.
J. Hall, coll. 1862

Leda (Nuculana) diversa *see* Leda diversa

Leda obscura Hall

9302/1 TYPE Leda (Nuculana) curta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 48.

Leda obscura Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 331, pl. 47, fig. 48.

Ithaca beds? (drift) Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

Leda (Nuculana) perstriata *see* Leda rostellata

Leda rostellata Conrad (sp.)

9303/1 TYPE Nuculites rostellata Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Leda (Nuculana) perstriata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 42.

Leda rostellata Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 42.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

9303/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 43.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 43.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

9303/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 44.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 44.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

9303/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 45.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 45.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

2514 $\frac{9302}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 46, 47.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 46, 47.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

LEPTODESMA Hall

Leptodesma ?

2515 $\frac{9310}{1}$ TYPE Leptodesma? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 4.

Chemung (?) beds Salamanca, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Leptodesma agassizi Hall

2516 $\frac{9311}{1}$ TYPE Leptodesma agassizi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 182, pl. 89, fig. 17.

Chemung beds Along Chemung river above Elmira N.Y.
A. Sherwood, coll. 1871

On slab with type of L. spinigerum, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1, and type of L. billingsi, pl. 89, fig. 12.

2517 $\frac{9311}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 18.

Chemung beds Chemung river, between Elmira and Waverly N. Y.
A. Sherwood, coll. 1871

2518 $\frac{9311}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 19.

Chemung beds Along Chemung river above Elmira N. Y.
A. Sherwood, coll. 1871

On slab with type of L. spinigerum, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1.

Leptodesma alatum Hall

2519 $\frac{9312}{1}$ TYPE Leptodesma alatum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 218, pl. 90, fig. 26.

Chemung beds Canton, Bradford co. Pa.
A. Sherwood, coll. 1871

2520 $\frac{9312}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 27.

Chemung beds Canton Pa.
A. Sherwood, coll. 1871

Leptodesma arciforme Hall

9313/1 TYPE Leptodesma arciforme Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 229, pl. 91, fig. 12.
Upper Chemung beds — Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma becki Hall

9314/1 TYPE Leptodesma becki Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 4.
Chemung beds — Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

Leptodesma billingsi Hall

9315/1 TYPE Leptodesma billingsi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 192, pl. 89, fig. 12.
Chemung (?) beds — Panama, Chautauqua co. N. Y.
J. Hall, coll. 1870

9315/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 13.
Chemung beds — Along Chemung river above Elmira N. Y.
A. Sherwood, coll. 1871
On slab with type of L. spinigerum, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 1; and L. agassizi, pl. 89, fig. 17.

9315/3 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 14.
Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1870

9315/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 15.
Chemung beds — Between Corning and Elmira N. Y.
A. Sherwood, coll. 1871

Leptodesma biton Hall

9316/1 TYPE Leptodesma biton Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 222, pl. 91, fig. 1.
Upper Chemung beds — South of Smethport Pa.
C. Van Deloo, coll. 1870

Leptodesma cadmus Hall

2528 $\frac{9317}{1}$ TYPE Leptodesma cadmus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 201, pl. 90, fig. 6.
Chemung beds Smithfield, Bradford co. Pa.
A. Sherwood, coll. 1871

2529 $\frac{9317}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 7.
Upper Chemung beds Lindley township, Steuben co. N. Y.
A. Sherwood, coll. 1871

Leptodesma clitus Hall

2530 $\frac{9318}{1}$ TYPE Leptodesma clitus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 210, pl. 90, fig. 21.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma corydon Hall

2531 $\frac{9319}{1}$ TYPE Leptodesma corydon Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 212, pl. 90, fig. 22.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma creon Hall

2532 $\frac{9320}{1}$ TYPE Leptodesma creon Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 202, pl. 90, fig. 12.
Upper Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871

2533 $\frac{9320}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 13.
Upper Chemung beds Lawrenceville Pa.
A. Sherwood, coll. 1871

Leptodesma curvatum Hall

2534 $\frac{9321}{1}$ TYPE Leptodesma curvatum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 5.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 5.
Upper Chemung beds McKean county, Pa.
A. Sherwood, coll. 1871

Leptodesma demus Hall

2535 $\frac{9322}{1}$ TYPE Leptodesma Hall. Paleontology New York. 1884. pl. 90, fig.
Chemung bed

9322/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 16.

Chemung beds — Lawrenceville Pa.
A. Sherwood, coll. 1871

Leptodesma disparile Hall

9323/1 TYPE Leptodesma disparile Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 2.

Upper Chemung beds — Between Bradford and Farmers Valley, McKean co. Pa.
A. Sherwood, coll. 1871

On slab with type of pl. 89, fig. 24.

9323/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 3.

Upper Chemung beds — Between Bradford and Farmers Valley Pa.
A. Sherwood, coll. 1871

9323/3 TYPE Hall. Paleontology of New York. 1883. v 5, pt 1, plates and explanations, pl. 25, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 4.

Upper Chemung beds — Between Bradford and Farmers Valley Pa.
A. Sherwood, coll. 1871

9323/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 23.

Upper Chemung beds — Between Bradford and Farmers Valley Pa.
A. Sherwood, coll. 1871

9323/5 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 24.

Upper Chemung beds — Between Bradford and Farmers Valley Pa.
A. Sherwood, coll. 1871

On slab with type of pl. 25, fig. 2.

Leptodesma extenuatum Hall

2542 $\frac{9324}{1}$ TYPE Leptodesma extenuatum Hall. I
tology of New York. 1884. v. 5, pt 1, p. 207, pl. 90,
Chemung beds Mansfield, Tioga co.
A. Sherwood, col

Leptodesma hector Hall

2543 $\frac{9325}{1}$ TYPE Leptodesma hector Hall. Paleonto
New York. 1884. v. 5, pt 1, p. 209, pl. 90, fig. 19
Upper Chemung beds Canton, Bradford c
A. Sherwood, coll

2544 $\frac{9325}{2}$ TYPE Hall. Paleontology of New York. 1884.
pt 1, pl. 90, fig. 20.
Upper Chemung beds Cant
A. Sherwood, coll

Leptodesma jason Hall

2545 $\frac{9326}{1}$ TYPE Leptodesma jason Hall. Paleontolo
New York. 1884. v. 5, pt 1, p. 213, pl. 91, fig. 4.
Chemung beds Canto
A. Sherwood, coll.

2546 $\frac{9326}{2}$ TYPE Hall. Paleontology of New York. 1884.
pt 1, pl. 91, fig. 5.
Upper Chemung beds Seeley creek, Tioga c
A. Sherwood, coll

2547 $\frac{9326}{3}$ TYPE Hall. Paleontology of New York. 1884.
pt 1, pl. 91, fig. 6.
Upper Chemung beds Seeley cree
A. Sherwood, coll.

Leptodesma lepidum Hall

2548 $\frac{9327}{1}$ TYPE Leptodesma lepidum Hall. Paleon
of New York. 1883. v. 5, pt 1, plates and explan
pl. 21.
Hall. Paleontology of New York. 1884. v. 5
pl. 89, fig. 16.
Chemung beds Mansfield
A. Sherwood, coll.

Leptodesma lesleyi Hall

[illegible] desma lesleyi Hall. Paleont
v. 5, pt 1, p. 223, pl. 91, fig.
eds Auburn township, Su
hanna c
A. Sherwood, coll.

Leptodesma lichas Hall

2329/1 TYPE Leptodesma lichas Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 37.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 37; pl. 91, fig. 20.

Chemung beds — Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

On slab with type of Pterinopecten neptunus, Pal. N. Y. v. 5, pt 1, pl. 8, fig. 6.

Leptodesma longispinum Hall

2330/1 HYPOTYPE Avicula longispina Hall. Geology of New York; report on the 4th district. 1843. p. 262.

Leptodesma longispinum Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 2.

Chemung beds — Between Corning and Elmira N. Y.
A. Sherwood, coll. 1871

2330/2 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 3.

Chemung beds — Between Corning and Elmira N. Y.
A. Sherwood, coll. 1871

2330/3 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 4.

Chemung beds — Elmira N. Y.
C. Van Deloo, coll. 1870

Leptodesma loxias Hall

2331/1 TYPE Leptodesma loxias Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 204, pl. 90, fig. 14.

Chemung beds — Lawrenceville Pa.
A. Sherwood, coll. 1871

Leptodesma lysander Hall

2332/1 TYPE Leptodesma lysander Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 34.

Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma maclurii Hall

2556 $\frac{9333}{1}$ TYPE Leptodesma maclurii Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 8; pl. 91, fig. 14.

Upper Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

2557 $\frac{9333}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 13.

Upper Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma matheri Hall

2558 $\frac{9334}{1}$ TYPE Leptodesma matheri Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 8.

Upper Chemung beds — Bradford, McKean co. Pa.

R. P. Stevens, donor

2559 $\frac{9334}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 9.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

2560 $\frac{9334}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 10.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

2561 $\frac{9334}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 25.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

On slab with type of Camarotoechia contracta, Pal. N. Y. v. 4, pl. 55, fig. 27.

Leptodesma medon Hall

9335/1 TYPE Leptodesma medon Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 197, pl. 90, fig. 1.
Upper Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871

9335/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 2.
Upper Chemung beds Lawrenceville Pa.
A. Sherwood, coll. 1871

9335/3 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 4.
Upper Chemung beds Lawrenceville Pa.
A. Sherwood, coll. 1871

Leptodesma mentor ? Hall

9336/1 TYPE? Leptodesma mentor? Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 205, pl. 23, fig. 15.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

9336/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 5.
Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1878

Leptodesma mortoni Hall

9337/1 TYPE Leptodesma mortoni Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 29.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 29.
Chemung beds Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869
On slab with type of pl. 21, fig. 31; pl. 89, fig. 9.

9337/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 31.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 31; pl. 89, fig. 9.
Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869
On slab with type of pl. 21, fig. 29.

9337/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1; plates and explanations, pl. 21, fig. 32.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 32; pl. 89, fig. 10.

Chemung beds — Portville N. Y.
R. P. Whitfield, coll. 1869

2570 $\frac{9337}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 11.

Chemung beds — Little Genesee, Allegany co. N. Y.
C. Van Deloo, coll. 1863

Leptodesma mytiliforme Hall

2571 $\frac{9338}{1}$ TYPE Leptodesma mytiliforme Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 91, fig. 23.

Upper Chemung beds — Smethport Pa.
C. Van Deloo, coll. 1870

Leptodesma nereus Hall

2572 $\frac{9339}{1}$ TYPE Leptodesma nereus Hall. Paleontology of New York. 1884. v. 5, pt 1, p 217, pl. 90, fig. 31.

Upper Chemung beds — Canton, Bradford co. Pa.
A. Sherwood, coll. 1871

2573 $\frac{9339}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 32.

Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

2574 $\frac{9339}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 33.

Upper Chemung beds — Canton Pa.
A. Sherwood, coll. 1871

Leptodesma orcus Hall

2575 $\frac{9340}{1}$ TYPE Leptodesma orcus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 215, pl. 90, fig. 23.

Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma orodes Hall

2576 $\frac{9341}{1}$ TYPE Leptodesma orodes Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 6.

Upper Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

9341/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 9; pl. 90, fig. 8.

Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

9341/3 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 10.

? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 10.

Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

Leptodesma orus Hall

9342/1 TYPE Leptodesma orus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 219, pl. 90, fig. 30.

Chemung beds — Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma patulum Hall

9343/1 TYPE Leptodesma patulum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 226, pl. 91, fig. 10.

Upper Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma potens Hall

9344/1 TYPE Leptodesma potens Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 21.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 21.

Upper Chemung beds — East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Leptodesma maclurii Hall

2556 9333/1 TYPE Leptodesma maclurii Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 8; pl. 91, fig. 14.

Upper Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

2557 9333/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 13.

Upper Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Leptodesma matheri Hall

2558 9334/1 TYPE Leptodesma matheri Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 8.

Upper Chemung beds — Bradford, McKean co. Pa.

R. P. Stevens, donor

2559 9334/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 9.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

2560 9334/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 10.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

2561 9334/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 25.

Upper Chemung beds — Bradford Pa.

R. P. Stevens, donor

On slab with type of Camarotoechia contracta, Pal. N. Y. v. 4, pl. 55, fig. 27.

Leptodesma propinquum Hall

9346/1 TYPE Leptodesma propinquum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 231, pl. 91, fig. 16.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma quadratum Hall

9347/1 TYPE Leptodesma quadratum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 233, pl. 91, fig. 15.
Upper Chemung beds Lindley township, Steuben co. N. Y.
A. Sherwood, coll. 1871

Leptodesma robustum Hall

9348/1 TYPE Leptodesma robustum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 8.
Middle Chemung beds Painted Post, Steuben co. N. Y.

Leptodesma rogersi Hall

9349/1 TYPE Leptodesma rogersi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 1.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

9349/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 2.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

1349/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 3.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Hall. Paleontology of New York. 1884. v. 5, pl. 21, fig. 32; pl. 89, fig. 10.

Chemung beds — Portville N. R. P. Whitfield, coll. 1

2570 $\frac{9337}{4}$ TYPE Hall. Paleontology of New York. 1884. v. pt 1, pl. 89, fig. 11.

Chemung beds — Little Genesee, Allegany co. N. C. Van Deloo, coll. 18

Leptodesma mytiliforme Hall

2571 $\frac{9338}{1}$ TYPE Leptodesma mytiliforme Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 91, fig. 23.

Upper Chemung beds — Smethport Pa. C. Van Deloo, coll. 1870

Leptodesma nereus Hall

2572 $\frac{9339}{1}$ TYPE Leptodesma nereus Hall. Paleontology of New York. 1884. v. 5, pt 1, p 217, pl. 90, fig. 31.

Upper Chemung beds — Canton, Bradford co. Pa. A. Sherwood, coll. 1871

2573 $\frac{9339}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 32.

Chemung beds — Mansfield Pa. A. Sherwood, coll. 1871

2574 $\frac{9339}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 33.

Upper Chemung beds — Canton Pa. A. Sherwood, coll. 1871

Leptodesma orcus Hall

2575 $\frac{9340}{1}$ TYPE Leptodesma orcus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 215, pl. 90, fig. 23.

Chemung beds — Mansfield Pa. A. Sherwood, coll. 1871

Leptodesma orodes Hall

2576 $\frac{9341}{1}$ TYPE Leptodesma orodes Hall. Paleontology of New York. 1883. and explan pl. 25, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 6.

Upper Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

3411/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 9; pl. 90, fig. 8.

Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

3411/3 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 10.

? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 10.

Chemung beds — On road from Olean N. Y. to Smethport Pa.
C. Van Deloo, coll. 1870

Leptodesma orus Hall

3412/1 TYPE Leptodesma orus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 219, pl. 90, fig. 30.

Chemung beds — Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Leptodesma patulum Hall

3 TYPE Leptodesma patulum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 226, pl. 91, fig. 10.

Upper Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma potens Hall

TYPE Leptodesma potens Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 21.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 21.

Upper Chemung beds — East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2582 $\frac{9344}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 30.
Hall. Paleontology of New York. 1884. v. 5, pt 1. pl. 21, fig. 30.
Chemung beds Portville, Cattaraugus co. N. Y.
R. P. Whitfield, coll. 1869

2583 $\frac{9344}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 11.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 11.
Upper Chemung beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2584 $\frac{9344}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 12.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 12.
Upper Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

2585 $\frac{9344}{5}$ TYPE Hall Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 19.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 19.
Upper Chemung beds Portville N. Y.
R. P. Whitfield, coll. 1869

2586 $\frac{9344}{6}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 20.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 20.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2587 $\frac{9344}{7}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 7.
Upper Chemung beds Olean N. Y.
C. Van Deloo, coll. 1863

Leptodesma potens var. juvens Hall

2588 $\frac{9345}{1}$ TYPE Leptodesma potens var. juvens Hall Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 16.
Chemung beds East Randolph N. Y.
C. Van Deloo, coll. 1863

Leptodesma propinquum Hall

9346/1 TYPE Leptodesma propinquum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 231, pl. 91, fig. 16.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma quadratum Hall

9347/1 TYPE Leptodesma quadratum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 233, pl. 91, fig. 15.
Upper Chemung beds Lindley township, Steuben co. N. Y.
A. Sherwood, coll. 1871

Leptodesma robustum Hall

9348/1 TYPE Leptodesma robustum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 8.
Middle Chemung beds Painted Post, Steuben co. N. Y.

Leptodesma rogersi Hall

9349/1 TYPE Leptodesma rogersi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 1.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

9349/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 2.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

9349/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 3.
Ithaca beds Norwich N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

2595 $\frac{9349}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 4.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

2596 $\frac{9349}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 5.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

2597 $\frac{9349}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 6.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

2598 $\frac{9349}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 7.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

2599 $\frac{9349}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 8.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

2600 $\frac{9349}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 9.

Ithaca beds Norwich N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

Leptodesma rude Hall

2601 $\frac{9350}{1}$ TYPE Leptodesma rude Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 12.

Leptodesma umbonatum *var.* depressum Hall

9356/1 TYPE Leptodesma umbonatum var. depressum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 14; pl. 90, fig. 10.

Upper Chemung beds — Napoli Center, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Lima glaber *see* Crenipecten glaber?

Lima macroptera *see* Limoptera macroptera

Lima rugaestriata *see* Aviculopecten rugaestriatus

LIMOPTERA Hall

Limoptera curvata Hall

9360/1 TYPE Limoptera curvata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 18.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 28, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 28, fig. 2.

Hamilton beds — Madison county, N. Y.

Limoptera? limaeformis Hall

9361/1 TYPE Avicula limaeformis Hall. Paleontology of New York. 1852. 2:332, pl. 75, fig. 6a.

Coralline (Cobleskill) limestone — Schoharie N. Y.

9361/2 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 75, fig. 6b.

Coralline (Cobleskill) limestone — Schoharie N. Y.

Limoptera macroptera (Conrad) Hall

9362/1 TYPE Lima macroptera Conrad. Annual report of the New York state geological survey. 1838. p. 117.

Limoptera macroptera Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 14.

Hamilton beds — Pratt's falls, Onondaga co. N. Y. G. B. Simpson, coll. 1871

2608 $\frac{9352}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 21, fig. 28.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 21, fig. 28.
Chemung beds Conewango N. Y.
C. Van Deloo, coll. 1863

Leptodesma spinigerum Conrad (sp.)

2609 $\frac{9353}{1}$ HYPOTYPE Avicula spinigera Hall. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:237.
Leptodesma spinigerum Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 1.
Chemung beds Along Chemung river above Elmira N.Y.
A. Sherwood, coll. 1871
On slab with type of L. agassizi, Pal. N. Y. v. 5, pt 1, pl. 89, fig. 17.

Leptodesma stevensi Hall (*emend.*)

2610 $\frac{9354}{1}$ TYPE Leptodesma stephani Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 194, pl. 89, fig. 20.
Upper Chemung beds Bradford Pa.
R. P. Stevens, donor

2611 $\frac{9354}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 21.
Upper Chemung beds Bradford Pa.
R. P. Stevens, donor

2612 $\frac{9354}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 89, fig. 22.
Upper Chemung beds Bradford Pa.
R. P. Stevens, donor

Leptodesma truncatum Hall

2613 $\frac{9355}{1}$ TYPE Leptodesma truncatum Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 211, pl. 90, fig. 24.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

2614 $\frac{9355}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 90, fig. 25.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Leptodesma umbonatum *var.* **depressum** Hall

13561 TYPE Leptodesma umbonatum var. depressum Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 14; pl. 90, fig. 10.

Upper Chemung beds — Napoli Center, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Lima glaber *see* Crenipecten glaber?

Lima macroptera *see* Limoptera macroptera

Lima rugaestriata *see* Aviculopecten rugaestriatus

LIMOPTERA Hall

Limoptera curvata Hall

13560 TYPE Limoptera curvata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 18.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 28, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 28, fig. 2.

Hamilton beds — Madison county, N. Y.

Limoptera? limaeformis Hall

13611 TYPE Avicula limaeformis Hall. Paleontology of New York. 1852. 2:332, pl. 75, fig. 6a.

Coralline (Cobleskill) limestone — Schoharie N. Y.

13612 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 75, fig. 6b.

Coralline (Cobleskill) limestone — Schoharie N. Y.

Limoptera macroptera (Conrad) Hall

13562 TYPE Lima macroptera Conrad. Annual report of the New York state geological survey. 1838. p. 117.

Limoptera macroptera Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 14.

Hamilton beds — Pratt's falls, Onondaga co. N. Y. G. B. Simpson, coll. 1871

2620 9362/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 27, fig. 3.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 27, fig. 3.
Hamilton beds — Lebanon, Madison co. N. Y.
Geological survey collection

2621 9362/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 29, fig. 3, 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 29, fig. 3, 4.
Hamilton beds — Madison county, N. Y.

2622 9362/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 4.
Hamilton beds — Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

2623 9362/5 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 5, 6.
Hamilton beds — Pratt's falls, N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

2624 9362/6 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 7.
Hamilton beds — Schoharie county, N. Y.

2625 9362/7 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 8.
Hamilton beds — Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

2626 9362/8 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 92, fig. 9.
Hamilton beds — Pratt's falls, N. Y.
G. B. Simpson, coll. 1872

Limoptera obsoleta Hall

2627 9363/1 TYPE? Limoptera obsoleta? Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 18.
? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 26, fig. 10.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 26, fig. 10.
Hamilton beds — Cazenovia N. Y.
J. Hall, coll. 1862

23713 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 16.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

23713 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 17.
Hamilton beds Oaksville, Otsego co. N. Y.

23713 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 18.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

23713 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 5.
Hamilton beds Fultonham, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

23713 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 6.
Hamilton beds Schoharie co. N. Y.
J. Gebhard purchase, 1872

23713 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 7, 10.
Hamilton beds Delphi falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

23713 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 8.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844

23713 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 9.
Hamilton beds Fultonham N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

Liopteria gabbi Hall

23714 TYPE Leiopteria gabbi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 169, pl. 88, fig. 14.
Hamilton beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Leiopteria chemungensis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 172, pl. 22, fig. 17, 18.
Chemung beds 8 miles north of Binghamton N. Y.
L. Vanuxem, coll.

Liopteria conradi Hall

2634 $\frac{2372}{1}$ TYPE Leiopteria conradi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 1.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

2635 $\frac{2372}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 2.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2636 $\frac{2372}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 1.
Hamilton beds Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

2637 $\frac{2372}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 2.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

2638 $\frac{2372}{5}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 4.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

Liopteria dekayi Hall

2639 $\frac{2372}{1}$ TYPE Leiopteria dekayi Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 19, fig. 1.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 19, fig. 1.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

9373/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 16.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

9373/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 17.
Hamilton beds Oaksville, Otsego co. N. Y.

9373/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 18.
Hamilton beds (drift) Cooperstown N. Y.
C. Van Deloo, coll. 1864

9373/5 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 5.
Hamilton beds Fultonham, Schoharie co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

9373/6 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 6.
Hamilton beds Schoharie co. N. Y.
J. Gebhard purchase, 1872

9373/7 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 7, 10.
Hamilton beds Delphi falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

9373/8 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 8.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844

9373/9 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 9.
Hamilton beds Fultonham N. Y.
J. W. Hall and G. B. Simpson, coll. 1869

Liopteria gabbi Hall

9374/1 TYPE Leiopteria gabbi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 169, pl. 88, fig. 14.
Hamilton beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Liopteria greeni Hall

2649 $\frac{23}{1}\frac{75}{1}$ TYPE Leiopteria greeni Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 9.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 9.

Hamilton beds — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2650 $\frac{23}{3}\frac{73}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 21.

Hamilton beds — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2651 $\frac{23}{3}\frac{73}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 22.

Hamilton beds — Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Liopteria laevis Hall

2652 $\frac{23}{1}\frac{18}{1}$ HYPOTYPE Avicula laevis Hall. Geology of New York; report on the 4th district. 1843. p. 181.

Leiopteria laevis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 5.

Marcellus shale — Alden, Erie co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

2653 $\frac{23}{3}\frac{18}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 6.

Marcellus shale — Littleville, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

2654 $\frac{23}{3}\frac{18}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 7.

Marcellus shale — Alden N. Y.

C. A. White and C. Van Deloo, coll. 1860

2655 $\frac{23}{3}\frac{18}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 8.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 8.

Marcellus shale Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

9376/6 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 11.

Marcellus shale Littleville N. Y.

C. A. White and C. Van Deloo, coll. 1860

9376/6 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 5.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Liopteria leai Hall

9377/1 TYPE Leiopteria leai Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 168, pl. 88, fig. 24.

Hamilton beds Schoharie county, N. Y.

J. Gebhard purchase, 1872

9377/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 25.

Hamilton beds Schoharie county, N. Y.

J. Gebhard purchase, 1872

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 88, fig. 24.

Leiopteria nitida *see* Leiopteria chemungensis

Liopteria oweni Hall

9378/1 TYPE Leiopteria oweni Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 10.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Liopteria rafinesquii Hall

9379/1 TYPE Leiopteria rafinesquii Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 6.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2662 9379/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 20, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 20, fig. 7.

Hamilton beds — Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2663 9379/3 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 27.

Hamilton beds — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2664 9379/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 28.

Hamilton beds — Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857

Liopteria sayi Hall

2665 9380/1 TYPE Leiopteria sayi Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 162, pl. 88, fig. 15.

Hamilton beds — Cayuga lake, N. Y.
A. Sherwood, coll. 1871

2666 9380/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 16.

Hamilton beds — Livingston county, N. Y.

2667 9380/3 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 17.

Hamilton beds — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2668 9380/4 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 18.

Hamilton beds — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2669 9380/5 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 88, fig. 19.

Hamilton beds — Leonardsville, Madison co. N. Y.
k, R. P. Whitfield and C. Van Deloo, coll. 1857

2683 $\frac{9401}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 9.

Genesee shale — Bristol Center N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

2084 $\frac{9401}{7}$ HYPOTYPE Hall Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 11.

Genesee shale — Bristol Center N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

Lunulicardium? lineolatum Clarke

2685 $\frac{9402}{1}$ TYPE Lunulicardium(?) lineolatum Clarke. 13th annual report of the New York state geologist. 1894. 1 : 175, pl. 3, fig. 2.

Upper Hamilton shale — Livonia salt shaft, Livonia, Livingston co. N. Y.

D. D. Luther, coll. 1891

Lunulicardium livoniae Clarke

2686 $\frac{9402}{1}$ TYPE Lunulicardium livoniae Clarke. 13th annual report of the New York state geologist. 1894. 1 : 175, pl. 4, fig. 11.

Hamilton shale — Livonia salt shaft, Livonia N. Y.

D. D. Luther, coll. 1891

Lunulicardium marcellense Vanuxem (sp.)

2687 $\frac{9404}{1}$ HYPOTYPE Cypricardites marcellensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.

Lunulicardium marcellense Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 15.

Marcellus shale — Cherry Valley, Otsego co. N. Y.

2688 $\frac{9404}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 16.

Marcellus shale — Cherry Valley N. Y.

2677 $\frac{2400}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 22.

Marcellus shale — Alden, Erie co. N. Y.

C. A. White and C. Van Deloo, coll 1860

Lunulicardium fragile Hall

2678 $\frac{2401}{1}$ HYPOTYPE Avicula fragilis Hall. Geology of New York; report on the 4th district. 1843. p. 222.

Lunulicardium fragile Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 1.

Genesee shale — Darien, Genesee co. N. Y.

C. Van Deloo, coll. 1864

2679 $\frac{2401}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 2.

Genesee shale — Darien N. Y.

C. Van Deloo, coll. 1864

2680 $\frac{2401}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 3.

Hamilton beds — Vincent N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

2681 $\frac{2401}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 6.

Genesee shale — Bristol Center, Ontario co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

2682 $\frac{2401}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 8.

Genesee shale — Bristol Center N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

3 9401/6 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 9.

Genesee shale — Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

4 9401/7 HYPOTYPE Hall Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 11.

Genesee shale — Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Lunulicardium? lineolatum Clarke

5 9402/1 TYPE Lunulicardium(?) lineolatum Clarke. 13th annual report of the New York state geologist. 1894. 1: 175, pl. 3, fig. 2.

Upper Hamilton shale — Livonia salt shaft, Livonia, Livingston co. N. Y.
D. D. Luther, coll. 1891

Lunulicardium livoniae Clarke

6 9402/1 TYPE Lunulicardium livoniae Clarke. 13th annual report of the New York state geologist. 1894. 1: 175, pl. 4, fig. 11.

Hamilton shale — Livonia salt shaft, Livonia N. Y.
D. D. Luther, coll. 1891

Lunulicardium marcellense Vanuxem (sp.)

7 9404/1 HYPOTYPE Cypricardites marcellensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.

Lunulicardium marcellense Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 15.

Marcellus shale — Cherry Valley, Otsego co. N. Y.

8 9404/2 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 71, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 71, fig. 16.

Marcellus shale — Cherry Valley N. Y.

2699 $\frac{9425}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v 5, pt 1, plates and explanations, pl. 4, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 6.

Hamilton beds Moscow, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2700 $\frac{9425}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 3.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Lyriopecten priamus Hall

2701 $\frac{9426}{1}$ TYPE Lyriopecten priamus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 2.

Chemung beds Franklin, Delaware co. N. Y.

2702 $\frac{9426}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 6.

Chemung beds Franklin N. Y.

Lyriopecten solox Hall

2703 $\frac{9427}{1}$ TYPE Lyriopecten solox Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 5.

Chemung (?) beds Panama, Chautauqua co. N. Y.

Lyriopecten tricostatus Vanuxem (sp.)

2704 $\frac{9428}{1}$ HYPOTYPE Avicula tricostata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 179.

Lyriopecten tricostatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 4, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 11.

Hamilton beds Near Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

$\frac{4\,2\,8}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 10.

Chemung beds — Barker station, Broome co. N. Y.

MACRODON Lycett

Macrodon chemungensis Hall

$\frac{1\,4\,4\,0}{1}$ TYPE Macrodon chemungensis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 14.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 12.

Chemung beds — Meadville, Crawford co. Pa. C. Van Deloo, coll. 1863

$\frac{2\,4\,4\,0}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 16.

Chemung beds — Meadville Pa. C. Van Deloo, coll. 1863

Macrodon hamiltoniae Hall

$\frac{1\,4\,4\,1}{1}$ TYPE Macrodon hamiltoniae Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 13.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 2.

Hamilton beds — Fabius, Onondaga co. N. Y. G. B. Simpson, coll. 1863

$\frac{2\,4\,4\,1}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 3.

Hamilton beds — South of Cardiff, Onondaga co. N. Y. G. B. Simpson, coll. 1863

$\frac{3\,4\,4\,1}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 4.

Hamilton beds — Bellona, Yates co. N. Y. J. W. Hall and C. Van Deloo, coll. 1866

2699 $\frac{9425}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v 5, pt 1, plates and explanations, pl. 4, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 6.

Hamilton beds Moscow, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2700 $\frac{9425}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 3.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Lyriopecten priamus Hall

2701 $\frac{9426}{1}$ TYPE Lyriopecten priamus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 2.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 2.

Chemung beds Franklin, Delaware co. N. Y.

2702 $\frac{9426}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 6.

Chemung beds Franklin N. Y.

Lyriopecten solox Hall

2703 $\frac{9427}{1}$ TYPE Lyriopecten solox Hall. Paleontology of New York. 1883. v. 5. pt 1, plates and explanations. pl. 24, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 5.

Chemung (?) beds Panama, Chautauqua co. N. Y.

Lyriopecten tricostatus Vanuxem (sp.)

2704 $\frac{9428}{1}$ HYPOTYPE Avicula tricostata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 179.

Lyriopecten tricostatus Hall. Paleontology of New York. 1883. v. 5. pt 1, plates and explanations. pl. 4. fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 4, fig. 11.

Hamilton beds Near Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

2428/2 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 10, fig. 10.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 10, fig. 10.
Chemung beds Barker station, Broome co. N. Y.

MACRODON Lycett

Macrodon chemungensis Hall

2440/1 TYPE Macrodon chemungensis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 14.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 12.
Chemung beds Meadville, Crawford co. Pa.
C. Van Deloo, coll. 1863

2440/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 16.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 16.
Chemung beds Meadville Pa.
C. Van Deloo, coll. 1863

Macrodon hamiltoniae Hall

2441/1 TYPE Macrodon hamiltoniae Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 13.
Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 2.
Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2441/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 3.
Hamilton beds South of Cardiff, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2441/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 4.
Hamilton beds Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2711 $\frac{11}{4}\frac{11}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 5.

Hamilton beds — Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2712 $\frac{11}{3}\frac{11}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 6.

Hamilton beds — Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2713 $\frac{11}{10}\frac{11}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 9.

Hamilton beds — Cayuga lake, N. Y.

J. W. Hall, coll. 1866

MEGAMBONIA Hall

Megambonia (?) aviculoidea Hall

2714 $\frac{9}{1}\frac{52}{2}$ TYPE Megambonia aviculoidea Hall. Paleontology of New York. 1859. 3:274, pl. 49A, fig. 8.

Helderbergian — The Helderberg, N. Y.

Megambonia bellistriata Hall

2715 $\frac{9}{1}\frac{51}{1}$ TYPE: PLASTOTYPE Megambonia bellistriata Hall. Paleontology of New York. 1859. 3:467, pl. 109, fig. 4.

Oriskanian — Schoharie N. Y.

Megambonia cardiiformis Hall

2716 $\frac{9}{1}\frac{52}{2}$ HYPOTYPE Pterinea cardiiformis Hall. Geology of New York: report on the 4th district. 1843. p. 172.

Megambonia subcardiiformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 52, fig. 7, 8.

Megambonia cardiiformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 52, fig. 7, 8.

Onondaga limestone — Clarence, Erie co. N. Y.

Megambonia crenistriata Clarke

Megambonia crenistriata Clarke. New York memoir 3. 1900. p. 35, pl. 4, fig. 15.

Becraft mountain, Hudson N. Y.

$\frac{2470}{10}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 17.
Ithaca beds Ithaca N. Y.
J. W. Hall, coll. 1866

$\frac{2470}{11}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 5.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

$\frac{2470}{12}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 6.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

$\frac{2470}{13}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 7.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{2470}{14}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 8.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Microdon (Microdonella) (Eodon) bellistriatus *see* Microdon (Cypricardella) bellistriatus

Microdon ? complanatus *see* Microdon (Cypricardella) complanatus

Microdon (Cypricardella) complanatus Hall

$\frac{2471}{1}$ TYPE Microdon ? complanatus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 33.
Microdon (Cypricardella) complanatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 22.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

2725 $\frac{9470}{3}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 19.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

2726 $\frac{9470}{4}$ HYPOTYPE Microdon (Microdonella) (Eodon) bellistriatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 7.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2727 $\frac{9470}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 8.

Hamilton beds Skaneateles lake, N. Y.
W. M. Gabb, coll. 1857

2728 $\frac{9470}{6}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 10; pl. 74, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 10; pl. 74, fig. 9.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2729 $\frac{9470}{}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 12, 15; pl. 74, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 12, 15; pl. 74, fig. 10.

Hamilton beds Aurora, Cayuga co. N. Y.

2730 $\frac{9470}{}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 14, 18.

Hall. Paleontology of New York. 1885. pl. 73, fig. 14, 18.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2731 $\frac{9470}{9}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 16.

Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{9470}{10}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 73, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 73, fig. 17.
Ithaca beds Ithaca N. Y.
J. W. Hall, coll. 1866

$\frac{9470}{11}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 5.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

$\frac{9470}{12}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 6.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

$\frac{9470}{13}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 7.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{9470}{14}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 74, fig. 8.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 74, fig. 8.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Microdon (Microdonella) (Eodon) bellistriatus *see* Microdon (Cypricardella) bellistriatus

Microdon ? complanatus *see* Microdon (Cypricardella) complanatus

Microdon (Cypricardella) complanatus Hall

$\frac{9471}{1}$ TYPE Microdon ? complanatus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 33.
Microdon (Cypricardella) complanatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 42, fig. 22.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 12.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

2747 $\frac{9480}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 13.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

2748 $\frac{9480}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 14.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2749 $\frac{9480}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 16.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

2750 $\frac{9480}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 17

Hamilton beds Moravia N. Y.
G. B. Simpson, coll. 1863

2751 $\frac{9480}{8}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 18.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2752 $\frac{9480}{9}$ HYPOTYPE Hall. Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 76, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1 pl. 76, fig. 19.

Hamilton beds Moravia N.
G. B. Simpson, coll. 18

MODIOLA Lamarck

Modiola metella *see* Modiola (Mytilops) metella

Modiola ? obtusa *see* Modiolopsis obtusa

Modiola praecedens *see* Modiola (Mytilops) praecedens

Modiola (Mytilops) metella Hall

3 $\frac{2400}{1}$ TYPE Modiola metella Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 1.

Mytilops (Modiola) metella Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 23.

Modiola (Mytilops) metella Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 23.

Chemung (?) beds Panama, Chautauqua co. N. Y.

4 $\frac{2400}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 24.

Hall. Paleontology of New York. 1884. v. 5, pt 1 pl. 33, fig. 24.

Chemung (?) beds Along road from Ellington to Cherry Creek, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

Modiola (Mytilops) praecedens Hall

5 $\frac{2401}{1}$ TYPE Modiola praecedens Hall. Preliminary notice of lamellibranchiate sheils, pt 2. 1870. p. 1.

Mytilops (Modiola) praecedens Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 12.

Modiola (Mytilops) praecedens Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 12.

Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864

6 $\frac{2401}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 15.

Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

MODIOLOPSIS Hall

Modiolopsis anodontoides *see* Modiolopsis sinuata

Modiolopsis (?) lata Hall

2757 $\frac{25\,00}{1}$ TYPE Modiolopsis latus Hall. Paleontology of New York. 1847. 1:160, pl. 35, fig. 10b.
Trenton limestone Watertown, Jefferson co. N. Y.

Modiolopsis modiolaris Conrad (sp.)

2758 $\frac{25\,01}{1}$ HYPOTYPE Pterinea modiolaris Conrad. Annual report of the New York state geological survey. 1838. p. 118.
Modiolopsis modiolaris Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 1a.
Lorraine beds Rome, Oneida co. N. Y.

2759 $\frac{25\,01}{2}$ HYPOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 1b.
Lorraine beds Rome N. Y.

Modiolopsis nasutus *see* Orthodesma nasutum

Modiolopsis obtusa Hall

2760 $\frac{25\,02}{1}$ TYPE Modiola? obtusa Hall. Paleontology of New York. 1847. 1:40, pl. 10, fig. 1.
Lowville limestone Watertown, Jefferson co. N. Y.

Modiolopsis ovata Hall

2761 $\frac{25\,03}{1}$ TYPE Modiolopsis ovatus Hall. Paleontology of New York. 1852. 2:101, pl. 30, fig. 2a.
Clinton beds Mohawk, Herkimer co. N. Y.

2762 $\frac{25\,03}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 30, fig. 2b.
Clinton beds Mohawk N. Y.

Modiolopsis sinuata Emmons (sp.)

2763 $\frac{25\,04}{1}$ HYPOTYPE Cypricardites sinuata Emmons. Geology of New York; report on the 2d district. 1842. p. 399.
Modiolopsis anodontoides Hall. Paleontology of New York. 1847. v. 1, pl. 82, fig. 3a.
Lorraine beds Lorraine, Jefferson co. N. Y.

MODIOMORPHA Hall

Modiomorpha alta (Conrad) Hall

2764 $\frac{25\,20}{1}$ TYPE Cypricardites alta Conrad. Annual report of the New York state geological survey. 1841. p. 52.
Modiomorpha alta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 1.

Marcellus shale — Skaneateles lake, N. Y. W. M. Gabb, coll. 1857

9520/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 2.

Hamilton beds — Skaneateles lake, N. Y. G. B. Simpson, coll. 1863

9520/3 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 4.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 4.

Hamilton beds — Pratt's falls, Onondaga co. N. Y. G. B. Simpson, coll. 1863

9520/4 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 5.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 5.

Hamilton beds — Canandaigua lake, N. Y. R. P. Whitfield and J. W. Hall, coll. 1858

9520/5 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 6.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 6.

Hamilton beds — Pratt's falls, N. Y. G. B. Simpson, coll. 1863

9520/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 7.

Hamilton beds — Pratt's falls, N. Y. G. B. Simpson, coll. 1863

9520/7 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 8.

Hamilton beds — Pratt's falls, N. Y. G. B. Simpson, coll. 1863

2771 $\frac{9520}{8}$ TYPE ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 12.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 12.

Hamilton beds — Pratt's falls, N. Y.
G. B. Simpson, coll. 1863

2772 $\frac{9520}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 37, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 37, fig. 16.

Hamilton beds — Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Modiomorpha? amygdalina *see* Glossites depressus

Modiomorpha arcuata Hall

2773 $\frac{9521}{1}$ TYPE Modiomorpha arcuata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 21.

Hamilton beds — Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

Modiomorpha complanata *see* Modiomorpha mytiloides

Modimorpha? hyalea *see* Elymella nuculoides

Modiomorpha concentrica (Conrad) Hall

2774 $\frac{9522}{1}$ TYPE Pterinea concentrica Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Modiomorpha concentrica Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 1.

Hamilton beds — Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

2775 $\frac{9522}{2}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 2.

Hamilton beds — Cayuga lake, N. Y.
H. H. Smith, coll. 1871

[illegible] TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 3.

[illegible]on beds — Schoharie N. Y.

$\frac{9522}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 4.
Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871

$\frac{9522}{5}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 5.
Hamilton beds Delphi N. Y.
C. Van Deloo and H. H. Smith, coll. 1873.

$\frac{9522}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 2.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{9522}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 3.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{9522}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 6.
Hamilton beds Owasco lake, N. Y.
G. B. Simpson, coll. 1863.

$\frac{9522}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 7.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White, coll. 1860

$\frac{9522}{10}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 9.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863.

2784 $\frac{2}{1}\frac{5}{1}\frac{2}{1}\frac{2}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 36, fig. 12, 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 12, 13.

Hamilton beds — Western New York

2785 $\frac{2}{1}\frac{5}{1}\frac{2}{2}\frac{2}{1}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1. plates and explanations, pl. 36, fig. 17, 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 36, fig. 17, 18.

Hamilton beds — Blenheim, Schoharie co. N. Y.

J. W. Hall and G. B. Simpson, coll. 1869

Modiomorpha macilenta Hall

2786 $\frac{2}{1}\frac{5}{1}\frac{2}{1}\frac{2}{1}$ TYPE Modiomorpha macilenta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 76.

Hall. Paleontology of New York. 1883. v. 5, pt 1 plates and explanations, pl. 39, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 18.

Hamilton beds — York N. Y.

C. A. White and C. Van Deloo, coll. 1866

2787 $\frac{2}{1}\frac{5}{1}\frac{2}{1}\frac{2}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1. plates and explanations. pl. 39, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 20.

Hamilton beds — Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Modiomorpha mytiloides (Conrad) Hall

2788 $\frac{2}{1}\frac{5}{1}\frac{2}{1}\frac{2}{3}$ TYPE Cypricardites mytiloides Conrad. Annual report of the New York state geological survey. 1841. p. 52

Modiomorpha mytiloides Hall. Paleontology of New York. 1885. v. 5, pt 1. pl. 37, fig. 3.

Hamilton beds — Pratt's falls, N. Y.

G. B. Simpson, coll. 1863

2789 $\frac{2}{1}\frac{5}{1}\frac{2}{3}\frac{2}{1}$ TYPE Modiomorpha complanata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 2.

Modiomorpha mytiloides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 2.

[illegible] beds — Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1866

9524/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 4.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 4.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9524/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 5.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 5.
Hamilton beds Western New York

9524/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 6.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 6.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9524/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 9.
Hall. Paleontology of New York. 1885. v. 5, pt 2, pl. 38, fig. 9.
Hamilton beds Summit Corners, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

9524/7 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 10.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 10.
Hamilton beds Apulia, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

9524/8 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 11.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 11.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9524/9 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 38, fig. 12.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 38, fig. 12.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

MYTILARCA Hall

Mytilarca acutirostra Hall

2822 $\frac{9550}{1}$ HYPOTYPE Ambonychia acutirostra Hall. Geological survey of Wisconsin; report of progress. 1860.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 27, fig. 28.

Niagaran — Waldron, Shelby co. Ind.
C. D. Walcott, coll. 1878

Mytilarca arenacea *see* Mytilarca (Plethomytilus) arenacea

Mytilarca (Plethomytilus) arenacea Hall

2823 $\frac{9551}{1}$ TYPE Mytilarca arenacea Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 20.

Mytilarca (Plethomytilus) arenacea Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 10.

Schoharie grit — Schoharie N. Y.
C. Van Deloo, coll. 1862

Mytilarca attenuata Hall

2824 $\frac{9552}{1}$ TYPE Mytilarca attenuata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 23.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 32, fig. 20.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 32, fig. 20.

Chemung beds (drift) — Elmira N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Mytilarca chemungensis Conrad (sp.)

2825 $\frac{9553}{1}$ HYPOTYPE Inoceramus chemungensis Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 246.

Mytilarca chemungensis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 32, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 32, fig. 13.

Chemung (?) beds — Rockville, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

2826 $\frac{9553}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 32, fig. 14.

Hall. Paleontology of New York. 1883. v. 5, pt 1, nd explanations, pl. 41, fig. 15.
'aleontology of New York. 1885. v. 5, pt 1,

'ds Rockville, Allegany co. N. Y.
'Whitfield and C. Van Deloo, coll. 1869
'gy of New York. 1883. v. 5, pt 1,
l. 41, fig. 16.
'ew York. 1885. v. 5, pt 1,

Rockville N. Y.
. . Whitfield and C. Van Deloo, coll. 1869

odiomorpha schoharie Hall

E Modiomorpha schoharie Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 14.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Modiomorpha subalata (Conrad) Hall

TYPE Cypricardites subalata Conrad. Annual report of the New York state geological survey. 1841. p. 83.

Modiomorpha subalata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 2.

Hamilton beds Cardiff, Onondaga co. N. Y.
G. B. Simpson coll. 1863

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 39, fig. 3.

Hamilton beds Skaneateles lake, N. Y.
W. M. Gabb, coll. 1857

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 39, fig. 5.

2832 $\frac{9556}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 31, fig. 8.
Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 31, fig. 8.
Hamilton beds — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2833 $\frac{9556}{5}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 8.
Hamilton beds — York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Mytilarca pyramidata Hall

2834 $\frac{9557}{1}$ TYPE Mytilarca pyramidata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 1, 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 1, 2.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

2835 $\frac{9557}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 3.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

Mytilarca radiata *see* Byssopteria radiata

Mytilarca simplex Hall

2836 $\frac{9558}{1}$ TYPE Mytilops (Modiola) simplex Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 19.
Mytilarca simplex Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 19.
Chemung beds — West of Smethport Pa.
C. Van Deloo, coll. 1870

2837 $\frac{9558}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 21.
Chemung beds — West of Smethport Pa.
C. Van Deloo, coll. 1870

Mytilops (Modiola) lata *see* Mytilarca lata

Mytilops (Modiola) metella *see* Modiola (Mytilops) metella

E **Hall.** Paleontology of New York. 1883. v. 5 plates and explanations, pl. 39, fig. 13.
Paleontology of New York. 1885. v. 5, pt 1,
3.

ds Tully, Onondaga co. N. Y.
Whitfield and G. B. Simpson, coll. 1863
logy of New York. 1883. v. 5, pt 1,
pl. 39, fig. 14.
New York. 1885. v. 5, pt 1,

Cayuga lake, N. Y.
J. W. Hall, coll. 1866
ew York. 1883. v. 5, pt 1,
pl. 39, fig. 16.
gy of New York. 1885. v. 5, pt 1,

on beds Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Modiomorpha subalata *var.* **chemungensis** Hall

TYPE Modiomorpha subalata var. chemungensis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 284, pl. 39, fig. 15.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 41, fig. 7.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Modiomorpha subangulata Hall

TYPE Modiomorpha subangulata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 287, pl. 35, fig. 10.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 35, fig. 11.
Chemung beds Mansfield Pa.
A. Sherwood, coll. 1871

Monotis princeps *see* Aviculopecten princeps

Nucula corbuliformis Hall

2843 $\frac{9571}{1}$ TYPE? Nucula corbuliformis ? Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 2.

? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 10, 11.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 10, 11.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2844 $\frac{9571}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 24, 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 24, 27.

Hamilton beds Owasco lake, N. Y.

G. B. Simpson, coll. 1863

2845 $\frac{9571}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 25, 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 25, 30.

Hamilton beds Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2846 $\frac{9571}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 26, 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 26, 34.

Hamilton beds Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2847 $\frac{9571}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 28.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2848 $\frac{9571}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 31.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 31.

Hamilton beds Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 32, fig. 14.

Chemung beds — Randolph, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Mytilarca gibbosa Hall

9554/1 TYPE Mytilarca gibbosa Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 262, pl. 33, fig. 20; pl. 87, fig. 7.

Chemung beds — Napoli, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Mytilarca lata Hall

9555/1 TYPE Mytilops (Modiola) lata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 22.

Mytilarca lata Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 22.

Chemung beds — Randolph, Cattaraugus co. N. Y. C. Van Deloo, coll. 1863

Mytilarca (Plethomytilus) oviformis Conrad (sp.)

9556/1 HYPOTYPE Inoceramus oviformis Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 246.

Plethomytilus oviformis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 2.

Mytilarca (Plethomytilus) oviformis Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 2.

Hamilton beds — Hamilton, Madison co. N. Y. J. Hall, coll. 1844

9556/2 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 3.

Hamilton beds — York Center, Livingston co. N. Y.

9556/3 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 31, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 31, fig. 7.

Hamilton beds — Canandaigua lake, N. Y. C. A. White and C. Van Deloo, coll. 1860

2832 $\frac{9556}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 31, fig. 8.
Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 31, fig. 8.
Hamilton beds — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

2833 $\frac{9556}{5}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 87, fig. 8.
Hamilton beds — York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Mytilarca pyramidata Hall

2834 $\frac{9557}{1}$ TYPE Mytilarca pyramidata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 1, 2.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 1, 2.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

2835 $\frac{9557}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 80, fig. 3.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 3.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

Mytilarca radiata *see* Byssopteria radiata

Mytilarca simplex Hall

2836 $\frac{9559}{1}$ TYPE Mytilops (Modiola) simplex Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 19.
Mytilarca simplex Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 19.
Chemung beds — West of Smethport Pa.
C. Van Deloo, coll. 1870

2837 $\frac{9559}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 33, fig. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 33, fig. 21.
Chemung beds — West of Smethport Pa.
C. Van Deloo, coll. 1870

Mytilops (Modiola) lata *see* Mytilarca lata

Mytilops (Modiola) metella *see* Modiola (Mytilops) metella

Mytilops (Modiola) praecedens *see* Modiola (Mytilops) praecedens

Mytilops (Modiola) simplex *see* Mytilarca simplex

NUCULA Lamarck

Nucula bellistriatus (Conrad) Hall

25710/1 TYPE Nuculites bellistriata Conrad. Annual report of the New York state geological survey. 1841. p. 40.

Nucula bellistriata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 1, 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 1, 8.

Hamilton beds Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

25710/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 4.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

25710/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 6.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

25710/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 7.

Hamilton beds Tinker's falls, Apulia station, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

25710/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 9.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

Nucula corbuliformis Hall

2843 $\frac{9571}{1}$ TYPE? Nucula corbuliformis ? Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 2.

? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 10, 11.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 10, 11.

Hamilton beds — Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2844 $\frac{9571}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 24, 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 24, 27.

Hamilton beds — Owasco lake, N. Y.

G. B. Simpson, coll. 1863

2845 $\frac{9571}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 25, 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 25, 30.

Hamilton beds — Bellona, Yates co. N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2846 $\frac{9571}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 26, 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 26, 34.

Hamilton beds — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

2847 $\frac{9571}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 28.

Hamilton beds — Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

2848 $\frac{9571}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 31.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 31.

Hamilton ? — Bellona N. Y.

C. Van Deloo, coll. 1866

$\frac{711}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 33.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 33.

Hamilton beds Tully, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

$\frac{711}{8}$ TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 37.

? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 37.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Nucula globularis Hall

$\frac{712}{1}$ TYPE Nucula globularis Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 322, pl. 93, fig. 6.

Chemung (?) beds Panama, Chautauqua co. N. Y.
C. Van Deloo, coll. 1870

Nucula lamellata Hall

$\frac{713}{1}$ TYPE Nucula lamellata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 18.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

$\frac{713}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 19.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

$\frac{713}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 51, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 51, fig. 21.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

$\frac{713}{4}$ TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 7.

Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Nucula levata *see* Tellinomya (Ctenodonta) levata

2868 $\frac{9578}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 19, 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 19, 23.

Hamilton beds — Norton's landing, N. Y. J. W. Hall, coll. 1866

2869 $\frac{9578}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 20.

Hamilton beds — Norton's landing, N. Y. J. W. Hall, coll. 1866

2870 $\frac{9578}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 21.

Hamilton beds — Norton's landing, N. Y. J. W. Hall, coll. 1866

2871 $\frac{9578}{9}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 46, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 46, fig. 22.

Hamilton beds — Bellona N. Y. C. A. White and C. Van Deloo, coll. 1860

NUCULITES Conrad

Nuculites bellistriata *see* Nucula bellistriata

Nuculites cuneiformis Conrad

2872 $\frac{1580}{1}$ HYPOTYPE Nuculites cuneiformis Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 13.

Hamilton beds — Madison county, N. Y. J. Hall, coll. 1844

14 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 14.

Hamilton beds — Schoharie county, N. Y. J. Hall, coll. 1844

Nuculites constricta *see* Palaeoneilo constricta

Nuculites emarginata *see* Nucula emarginata

Nuculites filosa *see* Palaeoneilo filosa

Nuculites lirata *see* Nucula lirata

Nuculites oblongatus Conrad

9581/1 HYPOTYPE Nuculites oblongata Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Nuculites oblongatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 1.

Hamilton beds — Skaneateles lake, N. Y. G. B. Simpson, coll. 1863

9581/2 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 3.

Hamilton beds — Summit, Schoharie co. N. Y. C. Van Deloo, coll 1862

9581/3 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 4.

Hamilton beds — Skaneateles lake, N. Y. G. B. Simpson, coll. 1863

9581/4 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 5.

Hamilton beds — Summit, Schoharie co. N. Y. C. Van Deloo, coll. 1862

9581/5 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 10.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Nuculites planulata *see* Clidophorus planulatus

Nuculites radiata *see* Pholadella radiata

Nuculites rostellata *see* Leda rostellata

Nuculites subcuneatus Clarke

2879 $\frac{25821}{1}$ TYPE Nuculites subcuneatus Clarke. 13th annual report of the New York state geologist. 1894. 1: 173, pl. 4, fig. 9.

Hamilton shales Livonia salt shaft, Livonia, Livingston co. N. Y.
D. D. Luther, coll. 1891

2880 $\frac{25822}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 10.

Hamilton shales Livonia salt shaft, Livonia N. Y.
D. D. Luther, coll. 1891

Nuculites subemarginata *see* Tellinopis subemarginata

Nuculites triqueter Conrad

2881 $\frac{25831}{1}$ TYPE Nuculites triqueter Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 20.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2882 $\frac{25832}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 22.

Hamilton beds Moravia, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

2883 $\frac{25833}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 47, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 47, fig. 26.

Marcellus shale Alden, Erie co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9583/4 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 8.

Hamilton beds Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

9583/5 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 9.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

NYASSA Hall

Nyassa arguta Hall

9509/1 TYPE Nyassa arguta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 28.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 9.

Hamilton beds South of Cardiff, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

9509/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 10.

Hamilton beds Hamilton, Madison co. N. Y.
J. Hall, coll. 1844

Nyassa recta Hall

9501/1 TYPE Nyassa recta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 29.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 1.

Hamilton or Ithaca beds Fultonham, Schoharie co. N. Y.
J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 3, 4.

9501/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 3.

Hamilton or Ithaca beds Fultonham N. Y.
J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 1, 4.

2890 $\frac{25}{3}\frac{21}{}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 4.

Hamilton or Ithaca beds — Fultonham N. Y. J. Hall, coll. 1844

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 53, fig. 1, 3.

Nyassa subalata Hall

2891 $\frac{25}{1}\frac{22}{}$ TYPE Nyassa subalata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 29.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 53, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 53, fig. 24.

Hamilton or Ithaca beds — Summit, Schoharie co. N. Y. C. Van Deloo, coll. 1862

ORTHODESMA Hall & Whitfield

Orthodesma nasutum (Conrad) Hall

2892 $\frac{25}{2}\frac{00}{}$ TYPE Cypricardites nasuta Conrad. Annual report of the New York state geological survey. 1841. p. 52.

Mediolopsis nasutus Hall. Paleontology of New York. 1847. v. 1, pl. 81, fig. 2.

Lorraine beds — Lorraine, Jefferson co. N. Y.

ORTHONOTA Conrad

Orthonota carinata (Conrad) Hall

2893 [illegible] TYPE Orthonota carinata Conrad. Annual report of the New York state geological survey. 1841. p. 51.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 58, fig. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 58, fig. 34.

[illegible] — Cayuga lake, N. Y. H. H. Smith, coll. 18[illegible]

Orthonota parvula Hall

2894 [illegible] TYPE Orthonota parvula Hall. Preliminary notice of [illegible] shells, pt 2. 1870. p. 88.

[illegible] of New York. 1883. v. 5, pt 1, [illegible] pl. 58, fig. 29

620 TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 33.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 33.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

620 TYPE Palaeanatina typa (Hall in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 34.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 34.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

Palaeanatina quadrata *see* Prorhynchus quadratum

Palaeanatina solenoides Hall

621 TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 38, 39.

Palaeanatina solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 489, pl. 79, fig. 38, 39.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

Palaeanatina typa *see* Palaeanatina angusta

Palaeanatina typa *see* Palaeanatina solenoides

Palaeanatina typus Hall

622 TYPE Palaeanatina typa Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 85.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 26.

Chemung (?) beds Portville, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

622 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 27.

Chemung (?) beds Portville N. Y.

C. Van Deloo, coll. 1864

289 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 40.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 40.

Hamilton beds — Summit N. Y.

C. Van Deloo, coll. 1862

2901 $\frac{2812}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 41.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 41.

Hamilton beds — Summit N. Y.

C. Van Deloo, coll. 1862

PALAEANATINA Hall

Palaeanatina angusta Hall

2902 $\frac{2830}{1}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 29.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 490, pl. 79, fig. 29.

Chemung (?) beds — Portville, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

2903 $\frac{2830}{2}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 30.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 30.

Chemung (?) beds — Portville N. Y.

C. Van Deloo, coll. 1864

2904 $\frac{2830}{3}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 31.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 31.

Chemung (?) beds — Portville N. Y.

C. Van Deloo, coll. 1864

2905 $\frac{2830}{4}$ TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 32.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 32.

emung (?) beds — Portville N. Y.

C. Van Deloo, coll. 1864

19 TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 33.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 33.

Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

20 TYPE Palaeanatina typa (Hall in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 34.

Palaeanatina angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 34.

Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

Palaeanatina quadrata *see* Prorhynchus quadratum

Palaeanatina solenoides Hall

21 TYPE Palaeanatina typa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 38, 39.

Palaeanatina solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 489, pl. 79, fig. 38, 39.

Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

Palaeanatina typa *see* Palaeanatina angusta

Palaeanatina typa *see* Palaeanatina solenoides

Palaeanatina typus Hall

22 TYPE Palaeanatina typa Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 85.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 26.

Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864

½22 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 27.

Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

2911 $\frac{2622}{3}$ TYPE Hall. Paleontology of New York. 1883 v. 5, pt 1, plates and explanations, pl. 79, fig. 28.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 28.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

2912 $\frac{2622}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 35.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 35.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

2913 $\frac{2622}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 36.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 36.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

2914 $\frac{2622}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 37.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 37.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

PALAEONEILO Hall

Palaeoneilo angusta Hall

2915 $\frac{2630}{1}$ TYPE Palaeoneilo angusta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 344, pl. 93, fig. 11.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

Palaeoneilo arata Hall

2916 $\frac{2631}{1}$ TYPE Palaeoneilo arata Hall. Paleontology of New York. 1883. v. 5, pl. 1, plates and explanations, pl. 50, fig. 23.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 23.
Ithaca beds Norwich, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Palaeoneilo bisulcata Hall

TYPE Palaeoneilo bisulcata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 10.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 13.

Chemung beds Elmira N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 14.

Chemung beds Elmira N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo brevis Hall

TYPE Palaeoneilo brevis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 10.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 24.

Ithaca beds Franklin, Delaware co. N. Y.
J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 33.

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 25.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 26.

Ithaca beds Franklin N. Y.
J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 27.

TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 27.

Ithaca beds — Franklin N. Y. J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt. 1, pl. 50, fig. 26.

2923 $\frac{2633}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 28.

Ithaca beds — Franklin N. Y. J. Hall, coll. 1862

2924 $\frac{2633}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 29.

Ithaca beds — Franklin N. Y. J. Hall, coll. 1862

2925 $\frac{2633}{7}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 30.

Chemung beds — Belmont, Allegany co. N. Y. R. P. Whitfield and C. Van Deloo, coll. 1869

2926 $\frac{2633}{8}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 33.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 33.

Ithaca beds — Franklin N. Y. J. Hall, coll. 1862

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 50, fig. 24.

Palaeoneilo constricta Conrad (sp.)

2927 $\frac{2634}{1}$ HYPOTYPE Nuculites constricta Conrad. Journal of the Academy of natural sciences of Philadelphia. 1838 8 : 249.

Palaeoneilo constricta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 3.

Hamilton beds — Norton's landing, Cayuga lake, N. Y. J. W. Hall, coll.

$\frac{2634}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 4.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

$\frac{2634}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 7.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 7.

Hamilton beds — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{2634}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 13.

Hamilton beds — Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

$\frac{2634}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 16.

Ithaca beds — Dryden, Tompkins co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo constricta *var.* **flexuosa** Hall

$\frac{2635}{1}$ TYPE Palaeoneilo constricta var. flexuosa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 18.

Ithaca beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo emarginata (Conrad) Hall

$\frac{2636}{1}$ TYPE Nuculites emarginata Conrad. Annual report of the New York state geological survey. 1841. p. 50.

Palaeoneilo emarginata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 1.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2934 9636/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 2.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 2.

Hamilton beds — Aurora, Cayuga co. N. Y.
G. B. Simpson, coll. 1863

2935 9636/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 3.

Hamilton beds — Tully, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2936 9636/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 6.

Hamilton beds — Cumberland Md.
R. P. Whitfield and C. Van Deloo, coll. 1858

2937 9636/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 9.

Hamilton beds — Cumberland Md.
R. P. Whitfield and C. Van Deloo, coll. 1858

Palaeoneilo fecunda Hall

2938 9637/1 TYPE Palaeoneilo fecunda Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 8.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 13.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2939 9637/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 15.

Hamilton beds Cumberland Md.
R. P. Whitfield and C. Van Deloo, coll. 1858

9637/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 16.

Hamilton beds Cumberland Md.
R. P. Whitfield and C. Van Deloo, coll. 1858

9637/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 17.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 17.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9637/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 18, 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 18, 23.

Hamilton beds Cumberland Md.
R. P. Whitfield and C. Van Deloo, coll. 1858

Palaeoneilo filosa Conrad (sp.)

9638/1 HYPOTYPE Nuculites filosa Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:250.

Palaeoneilo filosa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 38.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 38.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo muta Hall

9639/1 TYPE Palaeoneilo muta Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 8.

Hall. Paleontology of New York. 1883. v. 5. pt 1, plates and explanations, pl. 49, fig. 25.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 25.

Hamilton beds Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1[illegible]

2945 $\frac{9639}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt [illegible] plates and explanations, pl. 49, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 26.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1[illegible]

2946 $\frac{9639}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt [illegible] plates and explanations, pl. 49, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 28.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1[illegible]

2947 $\frac{9639}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 29.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

2948 $\frac{9639}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 31, 32.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 31, 32.

Hamilton beds Skaneateles lake, N. Y.

G. B. Simpson, coll. 1863

Palaeoneilo perplana Hall

2949 $\frac{9640}{1}$ TYPE Palaeoneilo ? perplana Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 12.

Hamilton beds Reidsville, Albany co. N. Y.

J. W. Hall, coll. 1878

Palaeoneilo plana Hall

2950 $\frac{9641}{1}$ TYPE Palaeoneilo plana Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 7.

Hall. Paleontology of New York. 1883. v. 5, pt 1 plates and explanations, pl. 48, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 21.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

9641/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 24.

Hamilton beds Tinker's falls, near Apulia N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

9641/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 27.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

9641/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 48, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 48, fig. 28.

Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Palaeoneilo tenuistriata Hall

9642/1 TYPE Palaeoneilo tenuistriata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 9.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 4.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

9642/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 5.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 5.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

9642/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 6.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 6.
Hamilton beds — Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2957 $\frac{2442}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 7.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 49, fig. 7.
Hamilton beds — Pratt's falls, N. Y.
G. B. Simpson, coll. 1863

2958 $\frac{2442}{6}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 49, fig. 8.
Hall. Paleontology of New York. 1883. v. 5, pt 1, pl. 49, fig. 8.
Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

Palaeoneilo truncata Hall

2959 $\frac{2648}{1}$ TYPE Palaeoneilo truncata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 50, fig. 40.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 50, fig. 40.
Waverly group — Weymouth, Medina co. O.
C. A. White, coll. 1861

Palaeoneilo virginica Hall

2960 $\frac{2641}{1}$ TYPE Palaeoneilo virginica Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 341, pl. 93, fig. 14.
Hamilton beds — Patterson's creek, Va.
R. P. Whitfield and C. Van Deloo, coll. 1858

PALAEOPINNA Hall

Palaeopinna flabellum Hall

2961 $\frac{2650}{1}$ TYPE Paleopinna flabella Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 25, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 25, fig. 18; pl. 87, fig. 4.
Oriskany sandstone — Schoharie N. Y.

PANENKA Barrande

Panenka degener Hall

2660/1 TYPE Panenka degener Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 424, pl. 94, fig. 14.

Hamilton beds — Pratt's falls, N. Y.

C Van Deloo and H. H. Smith, coll. 1874

Panenka dichotoma Hall

2661/1 TYPE Cardiola ? dichotoma Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig 21.

Panenka dichotoma Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 21.

Schoharie grit — Schoharie N. Y.

2661/2 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 94, fig. 13.

Schoharie grit — Schoharie N. Y.

Panenka equilatera Hall

2662/1 TYPE Cardiola ? equilatera Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 4.

Panenka equilatera Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 4.

Marcellus shale — Avon, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Panenka lincklaeni Hall

2663/1 TYPE Cardiola lincklaeni Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 186.

Cardiola? lincklaeni Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 12.

Panenka lincklaeni Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 12.

Marcellus shale — Flint creek near Phelps, Ontario co. N. Y.

L. Lincklaen, coll. 1859

2663/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 13.

Marcellus shale — Indian reservation near Buffalo N. Y.

2968 $\frac{9663}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 14.

Marcellus shale Indian reservation near Buffalo N. Y.

Panenka mollis? Hall

2969 $\frac{9664}{1}$ TYPE? Panenka mollis? Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 420, pl. 80, fig. 9.

Marcellus shale Western New York
Pickett collection

Panenka radians Conrad (sp.)

2970 $\frac{9665}{1}$ HYPOTYPE Pterinea radians Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. p. 252.

Cardiola? radians Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 9.

Panenka radians Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 69, fig. 9.

Hamilton beds Cazenovia, Madison co. N. Y.

Panenka retusa Hall

2971 $\frac{9666}{1}$ TYPE Cardiola? radians (Conrad) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 6.

Panenka retusa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 421, pl. 69, fig. 6.

Hamilton beds Cayuga lake, N. Y.

Panenka ventricosa Hall

2972 $\frac{9667}{1}$ TYPE Cardiola? elevata (Conrad) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 69, fig. 1, 2.

Panenka ventricosa Hall. Paleontology New York. 1885. v. 5, pt 1, p. 417, pl. 69, fig. 1, 2.

Marcellus shale (Agoniatite limestone)
Schoharie county, N. Y.

PARACYCLAS Hall

Paracyclas elliptica Hall

2973 $\frac{9670}{1}$ HYPOTYPE Paracyclas elliptica Hall. Geology of New York; report on the 4th district. 184[illegible] p. 171.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 24.

Onondaga limestone — Columbus O.
R. P. Whitfield, coll. 1865

9670/2 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 27, 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 27, 28.

Onondaga limestone — Ontario Can.
J. De Cew, coll. 1866

Paracyclas ? elevata *see* Schizodus ? fissus

Paracyclas ignota Hall

9671/1 TYPE Paracyclas ignota Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 34.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 34.

Chemung beds — Meadville, Crawford co. Pa.
C. Van Deloo, coll. 1863

Paracyclas lirata Conrad (sp.)

9672/1 HYPOTYPE Posidonia lirata Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Paracyclas lirata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 11.

Hamilton beds — Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

9672/2 HYPOTYPE Hall, Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 12.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 12.

Hamilton beds — Fultonham N. Y.
W. M. Gabb, coll. 1857

2978 $\frac{2672}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 13.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2979 $\frac{2672}{4}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 14.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2980 $\frac{2672}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 17.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2981 $\frac{2672}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 18.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 18.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844

2982 $\frac{2672}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 19.
Hamilton beds Fultonham N. Y.

Paracyclas ? paupera Hall

2983 $\frac{2673}{1}$ TYPE Cytherodon (Schizodus) pauper Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 24.
Paracyclas ? pauper Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 24.
Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864

2984 $\frac{2673}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 26.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 26.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 186-

Paracyclas rotunda Hall

2674/1 TYPE Cardiomorpha rotunda Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 18.

Paracyclas rotunda Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 18; pl. 95, fig. 21.

Chemung beds — Kirkwood, Broome co. N. Y.
A. Sherwood, coll. 1871

2674/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 19.

Chemung beds — Kirkwood N. Y.
A. Sherwood coll. 1871

Paracyclas tenuis Hall

2675/1 TYPE Paracyclas tenuis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 20.

Hamilton beds — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

2675/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 21.

Hamilton beds — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

2675/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 22.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2675/4 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 25.

Hamilton beds — Skaneateles lake, N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

PARARCA Hall

Pararca erecta Hall

2991 $\frac{20}{1}$ TYPE Cardiola erecta Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 16.

Pararca erecta Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 16.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

Pararca neglecta Hall

2992 $\frac{20}{1}$ TYPE Cardiola transversa Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 13.

Pararca neglecta Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 432, pl. 70, fig. 13.

Chemung beds — Meadville Pa.

C. Van Deloo, coll. 1863

Pararca precedens Hall

2993 $\frac{20}{1}$ PLASTOTYPE Pararca precedens Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 429, pl. 94, fig. 19.

Onondaga limestone — Cayuga Ont.

Pararca sao Hall

2994 $\frac{20}{1}$ TYPE Cardiola sao Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 17.

Pararca sao Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 17.

Chemung beds — Meadville Pa

C. Van Deloo, coll. 1863

Pararca transversa Hall

2995 $\frac{20}{1}$ TYPE Cardiola transversa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 12.

Pararca transversa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 12.

Chemung (?) beds — Salamanca, Cattaraugus co. N. Y.

R. P. Whitfield, coll. 1863

$\frac{1684}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 14.

Chemung (?) beds — Salamanca N. Y.
R. P. Whitfield, coll. 1869

$\frac{1684}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 15.

Chemung (?) beds — Salamanca N. Y.
R. P. Whitfield, coll. 1869

Pecten cancellatus *see* Aviculopecten cancellatus

Pecten? crenulatus *see* Crenipecten crenulatus

Pecten duplicatus *see* Aviculopecten duplicatus

Pernopecten fasciculatus *see* Lyriopecten fasciatus

PHOLADELLA Hall

Pholadella parallela Hall

$\frac{690}{1}$ TYPE Grammysia parallela Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 59.

Pholadella parallela Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 22.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

$\frac{1690}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 23.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

$\frac{1690}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 24.

Hamilton beds — Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

2978 $\frac{2672}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 13.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 13.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2979 $\frac{2672}{4}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 14.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2980 $\frac{2672}{5}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 17.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 17.
Hamilton beds Fultonham N. Y.
W. M. Gabb, coll. 1857

2981 $\frac{2672}{6}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 18.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 18.
Hamilton beds Fultonham N. Y.
J. Hall, coll. 1844

2982 $\frac{2672}{7}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 19.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 19.
Hamilton beds Fultonham N. Y.

Paracyclas ? paupera Hall

2983 $\frac{2673}{1}$ TYPE Cytherodon (Schizodus) pauper Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 24.
Paracyclas ? pauper Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 24.
Chemung (?) beds Portville, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1864

2984 $\frac{2673}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 26.
Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 26.
Chemung (?) beds Portville N. Y.
C. Van Deloo, coll. 1864

Paracyclas rotunda Hall

9674/1 TYPE Cardiomorpha rotunda Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 18.

Paracyclas rotunda Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 18; pl. 95, fig. 21.

Chemung beds — Kirkwood, Broome co. N. Y. A. Sherwood, coll. 1871

9674/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 19.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 19.

Chemung beds — Kirkwood N. Y. A. Sherwood coll. 1871

Paracyclas tenuis Hall

9675/1 TYPE Paracyclas tenuis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 20.

Hamilton beds — Bellona N. Y. J. W. Hall and C. Van Deloo, coll. 1866

9675/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 21.

Hamilton beds — Cayuga lake, N. Y. J. W. Hall, coll. 1866

9675/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 22.

Hamilton beds — Skaneateles lake, N. Y. G. B. Simpson, coll. 1863

9675/4 TYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 95, fig. 25.

Hamilton beds — Skaneateles lake, N. Y. J. W. Hall and G. B. Simpson, coll. 1872

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 12.

Hamilton beds Cazenovia, Madison co. N. Y.
J. Hall, coll. 1862

3012 $\frac{2703}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 13.

Hamilton beds West Bloomfield, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Phthonia truncata Hall

3013 $\frac{2704}{1}$ TYPE Phthonia truncata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 476, pl. 94, fig. 4.

Chemung (?) beds Panama, Chautauqua co. N. Y.
J. Hall, coll. 1870

Pinnopsis ornatus *see* Lunulicardium ornatum

Plethomytilus oviformis *see* Mytilarca (Plethomytilus) oviformis

Pleurorhynchus attenuatus *see* Conocardium cuneus *var.* attenuatum

Pleurorhynchus cuneus *see* Conocardium cuneus

Pleurorhynchus trigonalis *see* Conocardium cuneus *var.* trigonale

Posidonia alveata *see* Grammysia alveata

Posidonia ? arcuata *see* Grammysia arcuata

Posidonia lirata *see* Paracyclas lirata

PRORHYNCHUS Hall

Prorhynchus quadratum Hall

3014 $\frac{2720}{1}$ TYPE Palaeanatina quadrata Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 199.

Palaeanatina quadrata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 40.

Prorhynchus quadratum Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 40.

Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 14.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 14.

Chemung (?) beds — Salamanca N. Y.
R. P. Whitfield, coll. 1869

4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 70, fig. 15.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 15.

Chemung (?) beds — Salamanca N. Y.
R. P. Whitfield, coll. 1869

Pecten cancellatus *see* Aviculopecten cancellatus

Pecten? crenulatus *see* Crenipecten crenulatus

Pecten duplicatus *see* Aviculopecten duplicatus

Pernopecten fasciculatus *see* Lyriopecten fasciatus

PHOLADELLA Hall

Pholadella parallela Hall

2 TYPE Grammysia parallela Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 59.

Pholadella parallela Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 22.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 22.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 23.

Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

) TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 24.

Hamilton beds — Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Pholadella radiata Conrad (sp.)

3001 $\frac{9691}{1}$ HYPOTYPE Nuculites radiata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8 : 248.

Pholadella radiata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations pl. 78, fig. 16.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 16.

Hamilton beds — Fabius N. Y.

G. B. Simpson, coll. 1863

3002 $\frac{9691}{2}$ HYPOTYPE Hall. Paleontology of New York 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 18.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 18.

Hamilton beds — Summit, Schoharie co. N. Y.

J. Hall, coll. 1844

3003 $\frac{9691}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 20.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 20.

Hamilton beds — Fabius N. Y.

G. B. Simpson, coll. 1863

PHTHONIA Hall

Phthonia cylindrica Hall

3004 $\frac{9700}{1}$ TYPE Phthonia cylindrica Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 1.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 1.

Hamilton beds — Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

3005 $\frac{9700}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 3.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 3.

Hamilton beds — Pratt's falls, N. Y.

G. B. Simpson, coll. 1871

3006 $\frac{9700}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 4.

Hall. Paleontology of New York. 1885. v. 5, pt 1, . fig. 8.

'lton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

'ris planulata Hall

.:is planulata Hall. Paleontology . 1883. v. 5, pt 1, plates and explanations,

.il. Paleontology of New York. 1885. v. 5, pt 1, .. 94, fig. 8.

Ithaca beds Norwich, Chenango co. N. Y.
G. B. Simpson, coll. 1875

PROTOMYA Hall

Protomya oblonga Hall

9740/1 TYPE Cardiomorpha oblonga Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 21.

Protomya oblonga Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 21.

Hamilton beds Fultonham N. Y.

On slab with type of Liopteria bigsbyi, Pal. N. Y. v. 5, pt 1, pl. 20, fig. 13-15.

PTERINEA Goldfuss

Pterinea bisulcata *see* Grammysia bisulcata

Pterinea cardiiformis *see* Megambonia cardiiformis

Pterinea chemungensis Conrad (sp.)

9750/1 HYPOTYPE Avicula chemungensis Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:243.

Pterinea chemungensis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 7.

Chemung beds Chemung narrows, Chemung co. N. Y.

Pterinea concentrica *see* Modiomorpha concentrica

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 12.

Hamilton beds Cazenovia, Madison co. N. Y.
J. Hall, coll. 1862

3012 $\frac{2702}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 78, fig. 13.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 78, fig. 13.

Hamilton beds West Bloomfield, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Phthonia truncata Hall

3013 $\frac{2704}{1}$ TYPE Phthonia truncata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 476, pl. 94, fig. 4.

Chemung (?) beds Panama, Chautauqua co. N. Y.
J. Hall, coll. 1870

Pinnopsis ornatus *see* Lunulicardium ornatum

Plethomytilus oviformis *see* Mytilarca (Plethomytilus) oviformis

Pleurorhynchus attenuatus *see* Conocardium cuneus *var.* attenuatum

Pleurorhynchus cuneus *see* Conocardium cuneus

Pleurorhynchus trigonalis *see* Conocardium cuneus *var.* trigonale

Posidonia alveata *see* Grammysia alveata

Posidonia ? arcuata *see* Grammysia arcuata

Posidonia lirata *see* Paracyclas lirata

PRORHYNCHUS Hall

Prorhynchus quadratum Hall

3014 $\frac{2720}{1}$ TYPE Palaeanatina quadrata Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 199.

Palaeanatina quadrata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 40.

Prorhynchus quadratum Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 40.

Upper Chemung beds Smethport Pa.
C. Van Deloo, coll. 1870

9720/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 41, 42.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 41, 42.

Upper Chemung beds Smethport Pa.

9720/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 43.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 43

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

9720/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 44.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 44.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

9720/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 45.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 45.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

On slab with type of Pal. N. Y. v. 5, pt 1, pl. 79, fig. 44.

9720/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 46.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 46.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

9720/7 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 47.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 47; pl. 96, fig. 5.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

9720/8 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 79, fig. 48.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 79, fig. 48.

Upper Chemung beds Smethport Pa.

C. Van Deloo, coll. 1870

Pterinea consimilis Hall

3032 $\frac{9751}{1}$ TYPE Pterinea consimilis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 1.

Chemung beds — Chemung county, N. Y.

3033 $\frac{9751}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig. 23.

Chemung beds — Near Nichols, Tioga co. N. Y.
A. Sherwood, coll. 1871

Pterinea cuneata *see* Sphenotus cuneatus

Pterinea flabellum Conrad (sp.)

3034 $\frac{9752}{1}$ HYPOTYPE Avicula flabella Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:238.

Pterinea flabella Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 4.

Hamilton beds — Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

3035 $\frac{9752}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 5, 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 5, 12.

Hamilton beds — Tully N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

3036 $\frac{9752}{3}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 7.

Hamilton beds — Spafford corners, Skaneateles lake, N.Y.
W. M. Gabb, coll. 1857

3037 $\frac{9752}{4}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 8, 11, 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 8, 11, 14.

Hamilton beds — Delphi N. Y.
G. B. Simpson, coll. 1863

9752/5 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 14, fig. 9.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 14, fig. 9.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

9752/6 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 10.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 15, fig. 10.
Hamilton beds Hamburg, Erie co. N. Y.
C. A. White, coll. 1860

9752/7 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 11.
Chemung beds Lawrenceville, Tioga co. Pa.
A. Sherwood, coll. 1871

9752/8 HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 12.
Hamilton beds Schoharie county, N. Y.
J. Gebhard purchase

Pterinea grandis Hall

9753/1 TYPE Pterinea grandis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 91, pl. 83, fig. 14.
Onondaga limestone Lexington, Scott co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Pterinea halli nom. nov.

9754/1 TYPE Avicula securiformis Hall. Paleontology of New York. 1859. 3:290, pl. 53, fig. 11 (name preoccupied).
New Scotland beds Scholarie N. Y.

The species described by Hall in Pal. N. Y. 2:331, as Avicula securiformis, from the Coralline limestone, while specifically unlike that from the Helderbergian here referred to, appears to pertain to the same genus, and, with this present evidence, it becomes desirable to distinguish the two by the change of name above suggested.

Pterinea interstrialis Hall

9755/1 TYPE Pterinea interstrialis Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 84, fig 22.
Chemung beds Chemung narrows, Chemung co. N. Y.

Pterinea modiolaris *see* Modiolopsis modiolaris

Pterinea naviformis Conrad (sp.)

3045 $\frac{9756}{1}$ HYPOTYPE Avicula naviformis Conrad. Journal of the Academy of natural sciences. 1842. 8:210.

? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9a.

Coeymans limestone — Schoharie N. Y.

J. Gebhard purchase

3046 $\frac{9756}{2}$ HYPOTYPE ? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9b.

Coeymans limestone — Schoharie N. Y.

3047 $\frac{9756}{3}$ HYPOTYPE ? Hall. Paleontology of New York. 1859. v. 3, pl. 49A, fig. 9c.

Coeymans limestone — Schoharie N. Y.

Pterinea orbicularis *see* Ambonychia orbicularis

Pterinea pinguis Hall

3048 $\frac{9757}{1}$ TYPE Pterinea pinguis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 2.

Hall. Paleontology of New York. 1884. v 5, pt 1, pl. 15, fig. 2; pl. 83, fig. 13.

Onondaga limestone — Columbus O.

R. P. Whitfield, coll. 1865

3049 $\frac{9757}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 15, fig. 3.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 15, fig. 3.

Onondaga limestone — Columbus O.

R. P. Whitfield, coll. 1865

Pterinea planulata *see* Cypricardinia planulata

Pterinea prora Hall

3050 $\frac{9758}{1}$ TYPE Pterinea prora Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 16, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 16, fig. 14.

Chemung beds — Chemung county, N. Y.

Pterinea pygmaea *see* Modiella pygmaea

Pterinea radians *see* Panenka radians

Pterinea securiformis Hall

9759/1 TYPE Avicula securiformis Hall. Paleontology of New York. 1852. 2:331, pl. 75, fig. 4.
Coralline (Cobleskill) limestone Schoharie N. Y.

9759/2 TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 75, fig. 5b.
Coralline (Cobleskill) limestone Schoharie N. Y.

Pterinea ? suborbicularis *see* Pterinopecten suborbicularis

Pterinea triqueter *see* Gosselettia triquetra

Pterinea undata *see* Clionychia undata

PTERINOPECTEN Hall

Pterinopecten conspectus Hall

9770/1 TYPE: PLASTOTYPE Pterinopecten conspectus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 17.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 17.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

9770/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 18.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 18.
Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

9770/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 20.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 20.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White, coll. 1860

9770/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 21.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 21.
Hamilton beds Fall brook near Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

Pterinopecten crenicostatus Hall

3057 $\frac{9771}{1}$ TYPE Pterinopecten crenulatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 3.

Pterinopecten crenicostatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 78, pl. 8, fig. 3.

Chemung beds — Conewango, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

3058 $\frac{9771}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 4.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 4; pl. 82, fig. 14.

Chemung beds — Angelica N. Y.
R. P. Whitfield, coll. 1869

Pterinopecten crenulatus *see* Pterinopecten crenicostatus

Pterinopecten dispandus Hall

3059 $\frac{9772}{1}$ TYPE Pterinopecten dispandus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 76, pl. 82, fig. 11.

Chemung beds — Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

3060 $\frac{9772}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 12.

Chemung beds — Mansfield Pa.
A. Sherwood, coll. 1871

Pterinopecten exfoliatus Hall

3061 $\frac{9773}{1}$ TYPE Pterinopecten exfoliatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 1, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 1, fig. 16.

Marcellus shale — Littleville near West Avon, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

3062 $\frac{9773}{2}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 7.

Stafford (Marcellus) limestone — Genesee county, N. Y.

Pterinopecten filitextus Hall

$\frac{7774}{1}$ TYPE Pterinopecten filitextus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 9.

Hamilton beds — Cardiff, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

Pterinopecten hermes Hall

$\frac{7775}{1}$ TYPE Pterinopecten hermes Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 13.

Hamilton beds — Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

$\frac{7775}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 14.

Hamilton beds — Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

$\frac{7775}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 15.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 15.

Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Pterinopecten intermedius Hall

$\frac{7776}{1}$ TYPE Pterinopecten intermedius Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 68, pl. 83, fig. 4.

Hamilton beds — Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

$\frac{7776}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York, 1884. v. 5, pt 1, pl. 83, fig. 5.

Hamilton beds — Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Pterinopecten neptunus Hall

3069 $\frac{2777}{1}$ TYPE Pterinopecten neptunus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 5.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 5.

Chemung beds — Belmont, Allegany co. N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

3070 $\frac{2777}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 6.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 6.

Chemung beds — Belmont N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1869

On slab with type of Leptodesma lichas, Pal. N. Y. v. 5, pt 1, pl. 21, fig. 37.

3071 $\frac{2777}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 7.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 7.

Chemung beds — Angelica N. Y.

R. P. Whitfield, coll. 1869

Pterinopecten ? obscurus Hall (sp.)

3072 $\frac{2778}{1}$ TYPE Avicula obscura Hall. Paleontology of New York. 1859. 3:280, pl. 49, fig. 6.

Manlius limestone — Schoharie N. Y.

Pterinopecten proteus Clarke

3073 $\frac{2779}{1}$ TYPE: PLASTOTYPE Pterinopecten proteus Clarke. New York state museum memoir 3. 1900. p. 32, pl. 4, fig. 4.

Oriskanian — Becraft mountain, near Hudson N. Y.

3074 $\frac{2779}{2}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 5.

Oriskanian — Becraft mountain, near Hudson N. Y.

3075 $\frac{2779}{3}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 6.

Oriskanian — Becraft mountain, near Hudson N. Y.

3076 $\frac{2779}{4}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 7.

Oriskanian — Becraft mountain, near Hudson N. Y.

9779/3 TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 4, fig. 8.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten pumilus Clarke

9780/1 TYPE: PLASTOTYPE Pterinopecten pumilus Clarke. New York state museum memoir 3. 1900. p. 33, pl. 4, fig. 9.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten regularis Hall

9781/1 TYPE Pterinopecten regularis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 70, pl. 83, fig. 1.
Hamilton beds Between Geneseo and Avon N. Y.
C. Van Deloo, coll. 1865

Pterinopecten signatus Clarke

9782/1 TYPE: PLASTOTYPE Pterinopecten signatus Clarke. New York state museum memoir 3. 1900. p. 33, pl. 4, fig. 3.
Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten spondylus Hall

9783/1 TYPE Pterinopecten spondylus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 17, fig. 16.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 17, fig. 16.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Pterinopecten strictus Hall

9784/1 TYPE: PLASTOTYPE Pterinopecten strictus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 2.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 24, fig. 2; pl. 82, fig. 18.
Chemung beds Elmira N. Y.
C. Van Deloo, coll. 1870

Pterinopecten subequilateralis *see* Pterinopecten subequilaterus

Pterinopecten subequilateralis Hall (sp.)

9785/1 TYPE Avicula subequilatera Hall. Paleontology of New York. 1859. 3: 281, pl. 49A, fig. 6.
Coeymans limestone Schoharie N. Y.

3084 $\frac{0785}{2}$ HYPOTYPE: HYPOPLASTOTYPE Pterinopecten subequilateralis Clarke. New York state museum memoir 3. 1900. p. 31, pl. 4, fig. 14.

Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten suborbicularis Hall

3085 $\frac{0786}{1}$ HYPOTYPE Pterinea? suborbicularis Hall. Geology of New York; report on the 4th district. 1843. p. 264.

Pterinopecten suborbicularis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 1.

Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

3086 $\frac{0786}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 10.

Hall. Paleontology of New York. 1884. v. 5 pt 1, pl. 24, fig. 10.

Chemung beds Elm Valley, Allegany co. N. Y.
A. Sherwood, coll. 1871

3087 $\frac{0786}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 4.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Pterinopecten undosus Hall

3088 $\frac{0787}{1}$ TYPE Aviculopecten undulatus Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 185.

Pterinopecten undosus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 10.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3089 $\frac{0787}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 11.

Hamilton beds Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9787/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 12.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

9787/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 13.

Onondaga limestone Clarence Hollow N. Y.

C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

9787/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 14.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1862

9787/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl 2, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 16.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860,

9787/7 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 17.

Hamilton beds Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

9787/8 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 18.

Hamilton beds Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

9787/9 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 19.

Hamilton beds Geneseo N. Y.

C. A. White and C. Van Deloo, coll. 1860

3097 $\frac{2787}{10}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 7.
Hamilton beds Bethany N. Y.
C. Van Deloo, coll. 1865

Pterinopecten vertumnus Hall

3098 $\frac{2788}{1}$ TYPE Pterinopecten vertumnus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 4.
Hamilton beds Schoharie county, N. Y.

3099 $\frac{2788}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 6.
Hamilton beds Tully, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

3100 $\frac{2788}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 2.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

3101 $\frac{2788}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 3.
Hamilton beds Borodino N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

PTERONITES McCoy

Pteronites inoptatus Hall

3102 $\frac{2790}{1}$ TYPE Pteronites inoptatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 239, pl. 87, fig. 5.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Pteronites profundus Hall

3103 $\frac{2791}{1}$ TYPE Pteronites profundus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 25.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 25.
Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2791/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig 26.
Chemung beds Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2791/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 27.
Upper Chemung (?) beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Pteronites subdecussata *see* Actinopteria subdecussata

PTYCHOPTERIA Hall

Ptychopteria alata Hall

2800/1 TYPE? Ptychopteria alata? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 21.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 21.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

2800/2 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 22.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 22.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

2800/3 TYPE Ptychopteria alata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 25.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 25.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

2800/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 26.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

3084 $\frac{9785}{2}$ HYPOTYPE: HYPOPLASTOTYPE Pterinopecten subequilateralis Clarke. New York state museum memoir 3. 1900. p. 31, pl. 4, fig. 14.

Oriskanian Becraft mountain, near Hudson N. Y.

Pterinopecten suborbicularis Hall

3085 $\frac{9784}{1}$ HYPOTYPE Pterinea? suborbicularis Hall. Geology of New York; report on the 4th district. 1843. p. 264.

Pterinopecten suborbicularis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 8, fig. 1.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 8, fig. 1.

Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

3086 $\frac{9786}{2}$ HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 24, fig. 10.

Hall. Paleontology of New York. 1884. v. 5 pt 1, pl. 24, fig. 10.

Chemung beds Elm Valley, Allegany co. N. Y.
A. Sherwood, coll. 1871

3087 $\frac{9786}{3}$ HYPOTYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 4.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Pterinopecten undosus Hall

3088 $\frac{9787}{1}$ TYPE Aviculopecten undulatus Hall in Miller's Catalogue of American Paleozoic fossils. 1877. p. 185.

Pterinopecten undosus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 10.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 10.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3089 $\frac{9787}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 11.

Hamilton beds Bethany, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9787/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 12.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9787/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 13.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 13.

Onondaga limestone Clarence Hollow N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

9787/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 14.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

9787/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl 2, fig. 16.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 16.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860,

9787/7 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 17.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9787/8 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 18.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 18.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9787/9 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 2, fig. 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 2, fig. 19.

Hamilton beds Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860

3097 $\frac{9787}{10}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 82, fig. 7.
Hamilton beds Bethany N. Y.
C. Van Deloo, coll. 1865

Pterinopecten vertumnus Hall

3098 $\frac{9788}{1}$ TYPE Pterinopecten vertumnus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 4.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 4.
Hamilton beds Schoharie county, N. Y.

3099 $\frac{9788}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 5, fig. 6.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 5, fig. 6.
Hamilton beds Tully, Onondaga co. N. Y.
R. P. Whitfield and G. B. Simpson, coll. 1863

3100 $\frac{9788}{3}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 2.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

3101 $\frac{9788}{4}$ TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 83, fig. 3.
Hamilton beds Borodino N. Y.
J. W. Hall and G. B. Simpson, coll. 1871

PTERONITES McCoy

Pteronites inoptatus Hall

3102 $\frac{9790}{1}$ TYPE Pteronites inoptatus Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 239, pl. 87, fig. 5.
Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

Pteronites profundus Hall

3103 $\frac{9791}{1}$ TYPE Pteronites profundus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 25.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 25.
Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

2791/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig 26.
Chemung beds Randolph, Cattaraugus co, N. Y.
C. Van Deloo, coll. 1863

2791/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 22, fig. 27.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 22, fig. 27.
Upper Chemung (?) beds Olean, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Pteronites subdecussata *see* Actinopteria subdecussata

PTYCHOPTERIA Hall

Ptychopteria alata Hall

9800/1 TYPE? Ptychopteria alata? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 21.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 21.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

9800/2 TYPE? ? Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 22.
? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 22.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

9800/3 TYPE Ptychopteria alata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 25.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 25.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

9800/4 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 26.
Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 26.
Chemung (?) beds Salamanca N. Y.
R. P. Whitfield, coll. 1869

Sanguinolites ? clavulus *see* Sphenotus clavulus

Sanguinolites cuneatus *see* Sphenotus cuneatus

Sanguinolites glaucus *see* Goniophora glaucus

Sanguinolites hamiltonensis *see* Goniophora hamiltonensis

Sanguinolites ida *see* Goniophora ida

Sanguinolites perangulatus *see* Goniophora perangulata

Sanguinolites rigidus *see* Sphenotus ? arcuatus

Sanguinolites rigidus *see* Sphenotus contractus

Sanguinolites solenoides *see* Sphenotus solenoides

Sanguinolites subtortuosus *see* Sphenotus subtortuosus

Sanguinolites (?) subtruncatus Hall

3139 $\frac{9820}{1}$ TYPE Edmondia undulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 3.

Sanguinolites (?) subtruncatus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 508, pl. 64, fig. 3.

Chemung beds Cherry Creek, Chautauqua co. N. Y.
C. Van Deloo, coll. 1863

3140 $\frac{9820}{2}$ TYPE Edmondia undulata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 4.

Sanguinolites (?) subtruncatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 4.

Chemung beds Conewango, Cattaraugus co., N. Y.
C. Van Deloo, coll. 1863

Sanguinolites truncatus *see* Sphenotus truncatus

Sanguinolites (?) undulatus Hall

3141 $\frac{9821}{1}$ TYPE Edmondia undulata Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 91.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 64, fig. 2.

Sanguinolites (?) undulatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 64, fig. 2.

Chemung beds East Randolph, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

Sanguinolites ventricosus *see* Spathella typica

Ptychopteria expansa Hall

9804/1 TYPE Ptychopteria expansa Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 10, 11.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 10, 11.

Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Ptychopteria proto Hall

9805/1 TYPE Ptychopteria proto Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 12.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 12.

Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

9805/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 14.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 14.

Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Ptychopteria salamanca Hall

9806/1 TYPE Ptychopteria salamanca Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 17.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 17.

Chemung (?) beds — Rock City, near Salamanca N. Y.

R. P. Whitfield, coll. 1869

9806/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 18, 19.

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 18, 19.

Chemung (?) beds — Rock City, near Salamanca N.Y.

R. P. Whitfield, coll. 1869

9806/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 23, fig. 20.

Schizodus(?) fissus Hall

3147 $\frac{9833}{1}$ TYPE Paracyclas? elevata Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 37.

Schizodus ? fissa Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 447, pl. 72, fig. 37.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

3148 $\frac{9833}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 72, fig. 41.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 72, fig. 41.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

Schizodus oblatus Hall

3149 $\frac{9834}{1}$ TYPE Schizodus oblatus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 97.

Cytherodon (Schizodus) oblatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 43.

Schizodus oblatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 43.

Chemung beds — Napoli, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1863

3150 $\frac{9834}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 75, fig. 44.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 75, fig. 44.

Chemung beds — Napoli N. Y.

C. Van Deloo, coll. 1863

Schizodus patulus Hall

3151 $\frac{9836}{1}$ TYPE Cardiomorpha rotunda Hall (in part). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 20.

Schizodus patulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 20.

Chemung beds — Tioga, Tioga co. Pa.

A. Sherwood, coll. 1871

Schizodus quadrangularis *see* Schizodus chemungensis *var.* quadrangularis

Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 23, fig. 13.

Chemung beds — Smethport Pa.
C. Van Deloo, coll. 1870

Ptychopteria spio Hall

9809/1 TYPE Ptychopteria spio Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 137, pl. 85, fig. 19.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1871

Ptychopteria thetis Hall

9810/1 TYPE Ptychopteria thetis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 135, pl. 85, fig. 1.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1871

9810/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 2.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1871

9810/3 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 3.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1871

9810/4 TYPE? Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 4.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1871

Ptychopteria trigonalis Hall

9811/1 TYPE Ptychopteria trigonalis Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 140, pl. 85, fig. 34.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1870

9811/2 TYPE Hall. Paleontology of New York. 1884. v. 5, pt 1, pl. 85, fig. 35.

Chemung (?) beds — Panama N. Y.
J. Hall, coll. 1870

SANGUINOLITES McCoy

Sanguinolites aeolus *see* Sphenotus arcaeformis

Sanguinolites arcaeformis *see* Sphenotus arcaeformis

SPATHELLA Hall

Spathella typica Hall

3157 $\frac{9850}{1}$ TYPE Sanguinolites ventricosus (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 36.

Spathella typica Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 407, pl. 66, fig. 36.

Chemung beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

SPHENOTUS Hall

Sphenotus arcaeformis Hall

3158 $\frac{9860}{1}$ TYPE Sanguinolites arcaeformis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 40.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 7.

Sphenotus arcaeformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 7.

Hamilton beds Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

3159 $\frac{9860}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 8.

Hamilton beds Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

3160 $\frac{9860}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 9.

Hamilton beds Delphi N. Y.

G. B. Simpson, coll. 1863

3161 $\frac{9860}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 10.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

9860/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 11.

Hamilton beds — Delphi N. Y.

G. B. Simpson, coll. 1863

9860/6 TYPE? Sanguinolites aeolus Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 43.

Sphenotus arcaeformis? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 43.

Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Sphenotus (?) arcuatus Hall

9861/1 TYPE Sanguinolites rigidus (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 18.

Sphenotus (?) arcuatus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 400, pl. 66, fig. 18.

Chemung (?) beds — Panama, Chautauqua co. N. Y.

J. Hall, coll. 1870

Sphenotus clavulus Hall

9862/1 TYPE Sanguinolites? clavulus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 45.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 20.

Sphenotus clavulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 20.

Chemung beds — Olean, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 21, 26.

9862/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 21.

Chemung beds — Olean N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 20, 26.

9862/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 22.

SPATHELLA Hall

Spathella typica Hall

3157 $\frac{9850}{1}$ TYPE Sanguinolites ventricosus (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 36.

Spathella typica Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 407, pl. 66, fig. 36.

Chemung beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

SPHENOTUS Hall

Sphenotus arcaeformis Hall

3158 $\frac{9860}{1}$ TYPE Sanguinolites arcaeformis Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 40.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 7.

Sphenotus arcaeformis Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 7.

Hamilton beds Delphi, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

3159 $\frac{9860}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 8.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 8.

Hamilton beds Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

3160 $\frac{9860}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 9.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 9.

Hamilton beds Delphi N. Y.

G. B. Simpson, coll. 1863

3161 $\frac{9860}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 10.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 10.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1871

9860/5 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 11.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 11.

Hamilton beds — Delphi N. Y.

G. B. Simpson, coll. 1863

9860/6 TYPE? Sanguinolites aeolus Hall (in error). Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 43.

Sphenotus arcaeformis? Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 43.

Chemung beds — Smethport Pa.

C. Van Deloo, coll. 1870

Sphenotus (?) arcuatus Hall

9861/1 TYPE Sanguinolites rigidus (White & Whitfield) Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 18.

Sphenotus (?) arcuatus Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 400, pl. 66, fig. 18.

Chemung (?) beds — Panama, Chautauqua co. N. Y.

J. Hall, coll. 1870

Sphenotus clavulus Hall

9862/1 TYPE Sanguinolites? clavulus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 45.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 20.

Sphenotus clavulus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 20.

Chemung beds — Olean, Cattaraugus co. N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 21, 26.

9862/2 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 21.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 66, fig. 21.

Chemung beds — Olean N. Y.

C. Van Deloo, coll. 1864

On slab with types of Pal. N. Y. v. 5, pt 1, pl. 66, fig. 20, 26.

9862/3 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 66, fig. 22.

Sphenotus cuneatus Conrad (sp.)

3179 $\frac{0864}{1}$ TYPE Pterinea cuneata Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Sanguinolites cuneatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 12.

Sphenotus cuneatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 12.

Hamilton beds Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

Sphenotus solenoides Hall

3180 $\frac{0868}{1}$ TYPE Sanguinolites solenoides Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 38.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 21.

Sphenotus solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 21.

Hamilton beds Delphi N. Y.
G. B. Simpson, coll. 1863

3181 $\frac{0865}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 22, 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 22, 29.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

3182 $\frac{0865}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 23.

Hamilton beds Hamilton, Madison county, N. Y.

3183 $\frac{0865}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 24.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3184 $\frac{0865}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 27.

Hamilton beds — Bellona, Yates co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

9866/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 28.

Hamilton beds — Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Sphenotus subtortuosus Hall

9866/1 TYPE Sanguinolites subtortuosus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 41

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 19.

Sphenotus subtortuosus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 19.

Hamilton beds — York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Sphenotus truncatus Conrad (sp.)

9867/1 HYPOTYPE Cypricardites truncata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 244.

Sanguinolites truncatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 5.

Sphenotus truncatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 5.

Hamilton beds — Near Spafford Corners, Skaneateles lake, N. Y.

W. M. Gabb, coll. 1857

SPIRODOMUS Beecher

Spirodomus insignis Beecher

9880/1 TYPE Spirodomus insignis Beecher. 39th annual report of the New York state museum of natural history. 1886. p. 162, pl. 12, fig. 1.

Waverly beds — Warren Pa.

C. E. Beecher, donor

Sphenotus cuneatus Conrad (sp.)

3179 $\frac{9864}{1}$ TYPE Pterinea cuneata Conrad. Annual report of the New York state geological survey. 1838. p. 116.

Sanguinolites cuneatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 12.

Sphenotus cuneatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 12.

Hamilton beds Summit, Schoharie co. N. Y.
C. Van Deloo, coll. 1862

Sphenotus solenoides Hall

3180 $\frac{9865}{1}$ TYPE Sanguinolites solenoides Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 38.

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 21.

Sphenotus solenoides Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 21.

Hamilton beds Delphi N. Y.
G. B. Simpson, coll. 1863

3181 $\frac{9865}{2}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 22, 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 22, 29.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

3182 $\frac{9865}{3}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 23.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 23.

Hamilton beds Hamilton, Madison county, N. Y.

3183 $\frac{9865}{4}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 24.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 24.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3184 $\frac{9865}{5}$ TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 27.

Hamilton beds — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

9866/6 TYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 28.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 28.

Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Sphenotus subtortuosus Hall

9866/1 TYPE Sanguinolites subtortuosus Hall. Preliminary notice of lamellibranchiate shells, pt 2. 1870. p. 41

Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 19.

Sphenotus subtortuosus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 19.

Hamilton beds — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Sphenotus truncatus Conrad (sp.)

9867/1 HYPOTYPE Cypricardites truncata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 244.

Sanguinolites truncatus Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 65, fig. 5.

Sphenotus truncatus Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 65, fig. 5.

Hamilton beds — Near Spafford Corners, Skaneateles lake, N. Y.
W. M. Gabb, coll. 1857

SPIRODOMUS Beecher

Spirodomus insignis Beecher

9880/1 TYPE Spirodomus insignis Beecher. 39th annual report of the New York state museum of natural history. 1886. p. 162, pl. 12, fig. 1.

Waverly beds — Warren Pa.
C. E. Beecher, donor

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 24.

Hamilton beds Otisco lake, N. Y.
G. B. Simpson, coll. 1863

3203 9910/3 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 26.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 26.

Hamilton beds Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

3204 9910/4 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 27.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 27.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3205 9910/5 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 29.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 29.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

3206 9910/6 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 30.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 30.

Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 1871

3207 9910/7 HYPOTYPE Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 76, fig. 31.

Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 76, fig. 31.

Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

GASTROPODA

BELLEROPHON Montfort

Bellerophon auriculatus Hall

3208 10000/1 TYPE Bellerophon auriculatus Hall. Paleontology of New York. 1852. 2:334, pl. 76, fig. 7a, 7b.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Bellerophon bilobatus *var.* corrugatus Hall

10001/1 TYPE Bellerophon bilobatus var. corrugatus Hall. Paleontology of New York. 1843. 1:185, pl. 40, fig. 6b, 6c.

Trenton limestone Middleville, Herkimer co. N. Y.

Bellerophon brevilineatus Conrad

10002/1 HYPOTYPE Bellerophon brevilineatus Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:269.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 5.

Hamilton beds Norton's landing, Cayuga lake, N. Y. H. H. Smith, coll. 1871

10002/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 6.

Hamilton beds Norton's landing, N. Y. H. H. Smith, coll. 1871

Bellerophon cancellatus Hall

10003/1 TYPE Bellerophon cancellatus Hall. Paleontology of New York. 1847. 1:307, pl. 83, fig. 10a, 10b.

Lorraine shales Waterford N. Y.

Bellerophon crenistria (?) Hall

10004/1 TYPE Bellerophon crenistria Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 116, pl. 25, fig. 16.

Hamilton shales Norton's landing, Cayuga lake, N. Y. H. H. Smith, coll. 1871

10004/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 25, fig. 18.

Hamilton shales Summit, Schoharie co. N. Y. C. Van Deloo, coll. 1862

Bellerophon curvilineatus Conrad

10005/1 HYPOTYPE Bellerophon curvilineatus Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:269.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 6, fig. 8.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 29, 30.

Hall Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 2, 3

Onondaga limestone Schoharie N. Y.

3216 10008 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 27.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig 4.

Onondaga limestone Schoharie N. Y.

3217 10008 HYPOTYPE Hall Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 25.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 5.

Onondaga limestone Schoharie N. Y.

3218 10008 HYPOTYPE Hall. 15th annual report of the New York state cabinet of natural history, 1862. pl. 6, fig. 9.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 25, fig. 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 22, fig. 6.

Onondaga limestone Schoharie N. Y.

Bellerophon helena Hall

3219 10006 TYPE Bellerophon helena Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 114, pl. 24, fig. 11.

Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

Bellerophon hyalinus Hall

3220 10007 TYPE Bellerophon hyalina Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 99, pl. 26, fig. 4.

Onondaga limestone Jamesville, Onondaga co. N. Y.
C. A. White, coll. 1861

On slab with Coleolus crenatocinctum, Pal. N. Y. v. 5, pt 2, pl. 32, fig. 1.

Bellerophon leda Hall

3221 10008 HYPOTYPE Bellerophon leda Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 30.

Hall. Illustrations of Devonian fosssils. 1876. Gasteropoda, pl. 24, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 2.

Hamilton shales — Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

$\frac{10008}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 3.

Hamilton shales — Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

$\frac{10008}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 4.

Hamilton shales — Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

$\frac{10008}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 6, 7.

Hamilton shales — Cayuga lake, N. Y.
H. H. Smith, coll. 1871

$\frac{10008}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 8.

Hamilton shales — Fabius village, N. Y
G. B. Simpson, coll. 1863

$\frac{10008}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 9, 10.

Hamilton shales — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

7 $\frac{10008}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 11.

Hamilton shales — Cayuga lake, N. Y.
H. H. Smith, coll. 1871

8 $\frac{10008}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 24, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 23, fig. 12.

Hamilton shales — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

3229 $\frac{10008}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5. pt 2, pl. 26, fig. 24.

Hamilton shales Sherburne creek, Chenango co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Bellerophon maera Hall

3230 $\frac{10009}{1}$ HYPOTYPE Bellerophon maera Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, explanation of pl. 22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 119, pl. 26, fig. 19.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

3131 $\frac{10009}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 21.

Chemung beds Tioga village, Tioga co. Pa.
A. Sherwood, coll. 1871

Bellerophon nactus Hall

3232 $\frac{10010}{1}$ TYPE Bellerophon nactus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 121, pl. 26, fig. 17.

Chemung beds Mansfield, Tioga co. Pa.
A. Sherwood, coll. 1871

3233 $\frac{10010}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 18.

Chemung beds Belmont, Allegany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1869

Bellerophon otsego Hall

3234 $\frac{10011}{1}$ TYPE Bellerophon otsego Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 32.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 22, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 24, fig. 12.

Hamilton beds Schoharie N. Y.

Bellerophon patulus Hall

3235 $\frac{10012}{1}$ HYPOTYPE Bellerophon patulus Hall. Geology of New York; report on the 4th district. 1843. p. 196.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 23, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 25, pl. 10, fig. 27–29.

Hamilton shales — York, Livingston co. N. Y. C. Van Deloo, coll. 1865

Diaphorostoma furmanianum Hartt & Rathbun (sp.)

10104/1 HYPOTYPE: HYPOPLASTOTYPE Holopea furmaniana Hartt & Rathbun. Annals of the New York lyceum of natural history. 1875. 11:115.

Diaphorostoma furmanianum Clarke. Archivos do Museu nacional do Rio de Janeiro. 1899. v. 10, pl. 4, fig. 10.

Ereré sandstone (Middle Devonic) — Ereré, Pará, Brazil O. A. Derby, donor

Diaphorostoma lineatum Conrad (sp.)

10105/1 HYPOTYPE Platyostoma lineata Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:276.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 7.

Onondaga limestone — Schoharie N. Y.

10105/2 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 8.

Onondaga limestone — Cayuga, Ontario J. De Cew, coll. 1866

10105/3 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 9.

Onondaga limestone — Williamsville, Erie co. N. Y.

10105/4 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 10.

Onondaga limestone — Williamsville N. Y.

10105/5 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 11.

Hamilton shales — Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

3287 $\frac{10}{6}\frac{105}{}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 14.

Hamilton shales — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3288 $\frac{10}{7}\frac{105}{}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 16–18.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 16–18.

Hamilton shales — Canandaigua lake, N. Y.

3289 $\frac{10}{8}\frac{105}{}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 20, 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 10, fig. 20, 21.

Chemung beds — Southwestern New York

Diaphorostoma lineatum *var.* **amplum** Hall (sp.)

3290 $\frac{10}{1}\frac{106}{}$ TYPE Platyostoma lineata var. ampla Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 25, 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 23, pl. 10, fig. 25, 26.

Hamilton shales — Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma lineatum *var.* **callosum** Hall (sp.)

3291 $\frac{10}{1}\frac{107}{}$ TYPE Platyostoma var. callosa Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 9, fig. 22, 23.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 23, pl. 10, fig. 22, 23.

Hamilton shales — Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma turbinatum Hall (sp.)

3292 $\frac{10}{1}\frac{108}{}$ HYPOTYPE Platyostoma turbinata Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 106.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 10, fig. 12, 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 9, fig. 12, 13.

Onondaga limestone Schoharie N. Y.

Diaphorostoma turbinatum *var.* Hall (sp.)

3 $\frac{10|100}{1}$ TYPE Platyostoma turbinata var. Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 10, fig. 28–30.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 27, pl. 9, fig. 28–30.

Hamilton shales York, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Diaphorostoma ventricosum Conrad (sp.)

4 $\frac{10|10}{1}$ HYPOTYPE Platyceras ventricosum Conrad. Annual report on the Paleontology of New York. 1840. p. 206.

Platyostoma ventricosa Hall. Paleontology of New York. 1859. v. 3, pl. 115, fig. 8.

Oriskanian Schoharie N. Y.

5 $\frac{10|10}{2}$ HYPOTYPE Diaphorostoma ventricosum Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 25.

Oriskanian Becraft mountain, Hudson N. Y.

6 $\frac{10|10}{3}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 26, 28.

Oriskanian Becraft mountain, Hudson N. Y.

7 $\frac{10|10}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 27.

Oriskanian Becraft mountain, Hudson N. Y.

Ecculiomphalus comes *see* Phanerotinus laxus

ECCYLIOPTERUS Remelé

Eccyliopterus spiralis Ruedemann

8 $\frac{10|20}{1}$ TYPE Eccyliopterus spiralis Ruedemann. New York state museum bulletin 49. 1901. p. 34, pl. 2, fig. 9, 10.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

EUOMPHALUS Sowerby

Euomphalus clymenioides *see* Straparollus clymenioides

Euomphalus (Straparollus) clymenioides *see* Straparollus clymenioides

Euomphalus decewi *see* Pleuronotus decewi

Euomphalus disjunctus Hall

3299 $\frac{10}{1}\frac{180}{}$ TYPE Euomphalus disjunctus Hall. Paleontology of New York. 1859. 3:340, pl. 65, fig. 8.

Helderbergian — Carlisle, Schoharie co. N. Y. J. Gebhard purchase

Euomphalus eboracensis *see* Phanerotinus eboracensis

Euomphalus (Phanerotinus) eboracensis *see* Phanerotinus eboracensis

Euomphalus hecale *see* Straparollus hecale

Euomphalus (Straparollus) hecale *see* Straparollus hecale

Euomphalus (Straparollus) hecale var. corpulens *see* Straparollus hecale *var.* corpulens

Euomphalus inops *see* Straparollus inops

Euomphalus (Straparollus) inops *see* Straparollus inops

Euomphalus laxus *see* Phanerotinus laxus

Euomphalus (Phanerotinus) laxus *see* Phanerotinus laxus

Euomphalus rudis *see* Straparollus rudis

Euomphalus (Straparollus) rudis *see* Straparollus rudis

Euomphalus tioga Hall

3300 $\frac{10}{1}\frac{181}{}$ HYPOTYPE Euomphalus tioga Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 15, fig. 9, 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 56, pl. 15, fig. 9, 10.

Chemung beds — Nichols, Tioga co. N. Y.

3301 $\frac{10}{2}\frac{181}{}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 27, fig. 8.

Chemung beds — Nichols N. Y.

Euomphalus uniangulatus Hall

10132/1 PLASTOTYPE Euomphalus uniangulatus Hall. Paleontology of New York. 1847. 1:9, pl. 3, fig. 1.
Beekmantown limestone Saratoga Springs N. Y.

10132/2 PLASTOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 1a.
Beekmantown limestone Saratoga Springs N. Y.

HOLOPEA Hall

Holopea danai Hall

10140/1 TYPE Holopea danai Hall. Paleontology of New York. 1859. 3:295, pl. 54, fig. 14.
Helderbergian Schoharie N. Y.

Holopea? elongata Hall

10141/1 TYPE Holopea? elongata Hall. Paleontology of New York. 1859. 3:295, pl. 54, fig. 6.
Helderbergian Schoharie N. Y.

10141/2 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 54, fig. 7.
Helderbergian Schoharie N. Y.

Holopea furmaniana *see* Diaphorostoma furmanianum

Holopea obliqua Hall

10142/1 TYPE Holopea obliqua Hall. Paleontology of New York. 1847. 1:170, pl. 37, fig. 2d.
Trenton limestone Watertown, Jefferson co. N. Y.

Holopea obscura Hall

10143/1 TYPE Turbo? obscura Hall. Paleontology of New York. 1847. 1:12, pl. 3, fig 8.
Beekmantown limestone Fort Plain, Montgomery co. N. Y.

Holopea paludiniformis Hall

10144/1 TYPE Pleurotomaria Emmons. Geology of New York; report on the 2d district. 1842. p. 397, fig. 1.
Holopea paludiniformis Hall. Paleontology of New York. 1847. 1:171, pl 37, fig. 3a, 3b.
Trenton limestone Watertown, Jefferson co. N. Y.

Holopea ventricosa Hall

3310 10145 PLASTOTYPE Holopea ventricosa Hall. Paleontology of New York. 1847. 1:171, pl. 37, fig. 4a, 4b.
Trenton limestone Middleville, Herkimer co. N. Y.

LIOSPIRA Ulrich & Scofield

Liospira americana Billings (sp.)

3311 10150 HYPOTYPE Pleurotomaria americana Billings. Canadian naturalist and geologist. 1860. 5:164.
Liospira americana Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 7.
Trenton conglomerate Rysedorph hill, Rensselaer co. N. Y.
C. Schuchert, coll.

LOXONEMA Phillips

Loxonema? sp.

3312 10160 TYPE Loxonema? sp. Grabau. Bulletin of the Geological society of America. 1900. 11:370, pl. 22, fig. 5.
Manlius limestone Buffalo, Erie co. N. Y.
A. W. Grabau, donor

Loxonema sp.? *see* Loxonema bellona

Loxonema bellona Hall

3313 10161 TYPE Loxonema sp.? Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 4.
Loxonema bellona Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 46, pl. 14, fig. 4.
Hamilton shales Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

3314 10161 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 5.
Hamilton shales Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Loxonema breviculum Hall

3315 10162 TYPE Loxonema breviculum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 132, pl. 28, fig. 12.
Hamilton shales Hamburg, Erie co. N. Y.
C. A. White, coll. 1860

Loxonema delphicola Hall

10163/1 HYPOTYPE Loxonema delphicola Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 21.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 47, pl. 13, fig. 21.
Hamilton shales — Cayuga lake, N. Y.
H. H. Smith, coll. 1871

10163/2 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 25.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 25.
Hamilton shales — Bellona, Yates co. N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

10163/3 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 1.
Hamilton shales — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

10163/4 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 14, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 14, fig. 2.
Hamilton shales — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1861

10163/6 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 15.
Hamilton shales — Pompey Hill, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

Loxonema fitchi Hall

10164/1 TYPE Loxonema fitchi Hall. Paleontology of New York. 1859. 3:296, pl. 54, fig. 11b.
Helderbergian — Carlisle, Schoharie co. N. Y.

Loxonema hamiltoniae Hall

10165/1 HYPOTYPE Loxonema nexilis (Phil.) Hall. Geology of New York; report on the 4th district. 1843. p. 201.
Loxonema hamiltoniae Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 45, pl. 28, fig. 6.
Hamilton shales — Ovid, Seneca co. N. Y.

3323 $\frac{10}{2}\frac{165}{}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 7.
Marcellus shale New York

Loxonema laxum Hall

3324 $\frac{10}{1}\frac{166}{}$ TYPE Loxonema terebra? Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 18, fig. 12.
Loxonema laxa Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 49, pl. 18, fig. 12.
Chemung beds Nichols, Tioga co. N. Y.

Loxonema minusculum Hall

3325 $\frac{10}{1}\frac{167}{}$ TYPE Loxonema minuscula Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 14.
Marcellus shale Cherry Valley N. Y.
J. W. Hall, coll. 1877

Loxonema nexilis *see* Loxonema hamiltoniae

Loxonema? obtusum Hall

3326 $\frac{10}{1}\frac{168}{}$ TYPE Loxonema? obtusa Hall. Paleontology of New York. 1879. 3:297, pl. 54, fig. 10.
Helderbergian Schoharie N. Y.

Loxonema postremum Hall

3327 $\frac{10}{1}\frac{169}{}$ TYPE Loxonema postremum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 132, pl. 28, fig. 13.
Chemung beds Nichols, Tioga co. N. Y.
A. Sherwood, coll. 1871

Loxonema robustum Hall

3328 $\frac{10}{1}\frac{170}{}$ TYPE Loxonema robusta Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 24.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 4.
Schoharie grit Schoharie N. Y.

3329 $\frac{10}{2}\frac{170}{}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 5.
Schoharie grit Schoharie N. Y.

10170/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 4.
Onondaga limestone Ontario
J. De Cew, coll. 1866

Loxonema sicula Hall

10171/1 TYPE Loxonema sicula Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 43, pl. 28, fig. 1.
Onondaga limestone Jamesville, Onondaga co. N. Y.
C. A. White, coll. 1860

10171/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 2.
Onondaga limestone Jamesville N. Y.
C. A. White, coll. 1860

10171/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 3.
Onondaga limestone Jamesville N. Y.
C. A. White, coll. 1860

Loxonema solidum Hall

10172/1 TYPE Loxonema solida Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 23.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 8.
Schoharie grit Schoharie N. Y.

10172/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 9.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 9.
Schoharie grit Schoharie N. Y.

Loxonema? subattenuatum Hall

10173/1 TYPE Loxonema? subattenuata Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 24.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 1.
Schoharie grit Schoharie N. Y.

3337 10½73 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 2.
Schoharie grit Schoharie N. Y.

3338 10½73 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 13, fig. 3.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 13, fig. 3.
Schoharie grit Schoharie N. Y.

3339 10¼73 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 5.
Schoharie grit Schoharie co. N. Y.
J. Gebhard purchase

Loxonema terebra? *see* Loxonema laxum

Maclurea magna *see* Maclurites magnus

Maclurea sordida *see* Maclurites sordidus

Maclurea striatus *see* Raphistoma striatum

MACLURITES Lesueur

Maclurites magnus Lesueur

3340 10180 HYPOTYPE Maclurites magna Lesueur. Journal of the Academy of natural sciences of Philadelphia. 1818. 1:312.
Maclurea magna Hall. Paleontology of New York. 1847. v. 1, pl 5, fig. 1a.
Chazy limestone From boulder near Schoharie N. Y.
J. Gebhard purchase

Maclurites sordidus Hall

3341 10181 TYPE Maclurea sordida Hall. Paleontology of New York. 1847. 1:10, pl. 3, fig. 2.
Beekmantown limestone Glens Falls, Warren co. N. Y.

3342 10½81 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 2a.
Beekmantown limestone Glens Falls, Warren co. N. Y.

MACROCHILUS Phillips

Macrocheilus? primaevus *see* Macrochilus? (Pleuronema ?) primaevus

Macrochilus? (Pleuronema?) primaevus Hall

12800/1 TYPE Macrocheilus? primaevus Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 1.

Macrocheilus (Pleuronema?) primaevus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 34, pl. 12, fig. 1.

Schoharie grit — Schoharie N. Y.

12800/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 12, fig. 2, 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 12, fig. 2, 3.

Schoharie grit — Schoharie N. Y.

MACROCHILINA Bayle

Macrochilina onondagensis Clarke

12810/1 TYPE Macrochilina onondagensis Clarke. New York state museum bulletin 49. 1901. p. 127, fig. 1.

Agoniatites limestone — Manlius, Onondaga co. N. Y.
J. D. Wilson, donor

MURCHISONIA d'Archiac & de Verneuil

Murchisonia? angustata Hall

12820/1 TYPE Murchisonia? angustata Hall. Paleontology of New York. 1847. 1:41, pl. 10, fig. 2a.

Lowville limestone — Amsterdam, Montgomery co. N. Y.

Murchisonia? obtusa Hall

12821/1 TYPE Murchisonia obtusa Hall. Paleontology of New York. 1852. 2:333, pl. 76, fig. 3.

Coralline (Cobleskill) limestone — Schoharie N. Y.
J. Gebhard purchase

Murchisonia subfusiformis Hall

12822/1 HYPOTYPE Murchisonia subfusiformis Hall. Paleontology of New York. 1847. 1:180.

Hall. 3d annual report of the New York state cabinet of natural history. 1850. pl. 4, fig. 2.

Trenton limestone — Watertown, Jefferson co. N. Y.

Murchisonia? terebralis Hall

12823/1 TYPE Murchisonia? terebralis Hall. Paleontology of New York. 1852. 2:334, pl. 76, fig. 4.

Coralline (Cobleskill) limestone — Schoharie N. Y.
J. Gebhard purchase

Murchisonia ? varicosa Hall

3350 $\frac{10224}{1}$ TYPE Murchisonia varicosa Hall. Paleontology of New York. 1847. 1:42, pl. 10, fig. 7a.
Lowville limestone Watertown, Jefferson co. N. Y.

3351 $\frac{10224}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 7b.
Lowville limestone Watertown, Jefferson co. N. Y.

Murchisonia ventricosa Hall

3352 $\frac{10225}{1}$ TYPE Murchisonia ventricosa Hall. Paleontology of New York. 1847. 1:41, pl. 10, fig. 3.
Lowville limestone Tribe's Hill, Montgomery co. N. Y.

NATICOPSIS McCoy

Naticopsis comperta Hall

3353 $\frac{10230}{1}$ TYPE Naticopsis comperta Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 29, fig. 5, 6 (not described).
Onondaga limestone (New York)

Naticopsis gigantea Hall & Whitfield

3354 $\frac{10231}{1}$ TYPE Naticopsis gigantea Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 238, pl. 12, fig. 8.
Upper Devonic Lime creek, near Hackberry Grove, Ia.
R. P. Whitfield, coll. 1866

3355 $\frac{10231}{2}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 12, fig. 9.
Upper Devonic Lime creek, near Hackberry Grove, Ia.
R. P. Whitfield, coll. 1866

3356 $\frac{10231}{3}$ TYPE Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. pl. 12, fig. 10.
Upper Devonic Lime creek, near Hackberry Grove, Ia.
R. P. Whitfield, coll. 1866

ONYCHOCHILUS Lindström

Onychochilus nitidulus Clarke

3357 $\frac{10240}{1}$ TYPE Onychochilus nitidulus Clarke. 13th annual report of the New York state geologist. 1894. 1:172, pl. 4, fig. 13–15.
Marcellus (Stafford) limestone
Stafford, Genesee co. N. Y.
J. M. Clarke and J. Van Deloo, coll. 1888

8 $\frac{10340}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 4, fig. 16.

Marcellus (Stafford) limestone Stafford, N. Y.
J. M. Clarke and J. Van Deloo, coll. 1888

9 $\frac{10340}{3}$?HYPOTYPE ? Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 20.

Marcellus (Stafford) limestone Plumbottom creek, Lancaster N. Y.
E. Wood, donor

Ophileta complanata *see* Schizostoma complanatum

Ophileta levata *see* Schizostoma levatum

PALAEACMAEA Hall and Whitfield

Palaeacmaea typica Hall

50 $\frac{10260}{1}$ TYPE: PLASTOTYPE Palaeacmaea typica Hall. 23d annual report of the New York state cabinet of natural history 1873. p. 242, pl. 11, fig. 4, 5.

Potsdam sandstone Keeseville N. Y.
R. P. Whitfield, coll. 1867

PHANEROTINUS Sowerby

Phanerotinus eboracensis Hall

51 $\frac{10280}{1}$ TYPE Euomphalus eboracensis Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 27.

Euomphalus eboracensis Hall. Illustrations of Devonian fossils, 1876: Gasteropoda, pl. 16, fig. 21.

Euomphalus (Phanerotinus) eboracensis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 21.

Hamilton shales York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

52 $\frac{10280}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 22.

Hamilton shales York N. Y.
C. A. White and C. Van Deloo, coll. 1860

3363 $\frac{10880}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 23.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 23.

Hamilton shales York N. Y.

C. A. White and C. Van Deloo, coll. 1860

Phanerotinus laxus Hall

3364 $\frac{10881}{1}$ HYPOTYPE Euomphalus laxus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 26.

Ecculiomphalus comes Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 8.

Euomphalus (Phanerotinus) laxus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 8.

Hamilton shales Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

3365 $\frac{10881}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 17.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 17.

Onondaga limestone Schoharie N. Y.

PLATYCERAS Conrad

Platyceras argo Hall

3366 $\frac{10300}{1}$ TYPE Platyceras argo Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 11.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 8, fig. 1–3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 8, fig. 1–3.

Onondaga limestone Williamsville, Erie co. N. Y.

Platyceras attenuatum *see* Platyceras (Orthonychia) attenuatum

Platyceras (Orthonychia) attenuatum Hall

3367 $\frac{10301}{1}$ TYPE Platyceras attenuatum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 2.

Platyceras (Orthonychia) attenuatum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 1.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

10301/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 5, 6.

Hamilton shales Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

Platyceras auriculatum Hall

10302/1 TYPE Platyceras auriculatum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 8–10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 7, pl. 3, fig. 8–10.

Hamilton shales Darien, Genesee co. N. Y.
C. Van Deloo, coll. 1864

Platyceras bucculentum Hall

10303/1 TYPE Platyceras bucculentum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 5.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 29.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 29.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Platyceras carinatum Hall

10304/1 TYPE Platyceras carinatum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 5.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 20, 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 20, 21.

Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3372 $\frac{10304}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 22–25.

Hall. Paleontology of New York. 1879. v. 5, pt 2, fig. 22–25.

Hamilton shales Canandaigua lake, N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1858

3373 $\frac{10304}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 26, 27.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 26, 27.

Hamilton shales Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

Platyceras conicum *see* Platyceras (Orthonychia) conicum

Platyceras (Orthonychia) conicum Hall

3374 $\frac{10305}{1}$ TYPE Platyceras conicum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 3.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 1, fig. 20–22.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 20–22.

Hamilton shales Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

Platyceras crassum Hall

3375 $\frac{10306}{1}$ TYPE Platyceras crassum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 8.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 7, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 7, fig. 6.

Onondaga limestone Schoharie county, N. Y.

Platyceras (Orthonychia) dentalium Hall

3376 $\frac{10307}{1}$ TYPE Platyceras (Orthonychia) dentalium Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 1.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 3.

Onondaga limestone Williamsville, Erie co. N. Y.

10307/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 1, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 1, fig. 7.

Onondaga limestone Schoharie N. Y.

Platyceras dumosum Conrad.

10308/1 TYPE Platyceras dumosum Conrad. 3d annual report on the paleontology of New York. 1840. p. 205.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 6, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 6, fig. 1.

Onondaga limestone Schoharie N. Y.

10308/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 29, fig. 8.

Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

10308/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 28, fig. 20.

Onondaga limestone Schoharie N. Y.

Platyceras echinatum Hall.

10309/1 TYPE Platyceras echinatum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 10.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 5, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 5, fig. 3, 4.

Tully limestone Ovid, Seneca co. N. Y.

Platyceras erectum Hall.

2 10310/1 HYPOTYPE Acroculia erecta Hall. Geology of New York; report on the 4th district. 1843. p. 174.

Platyceras erectum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 2, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 2, fig. 5, 6.

Onondaga limestone Ontario

Platyceras expansus *see* Strophostylus expansus

Platyceras gebhardi Conrad

3383 $\frac{10311}{1}$ HYPOTYPE Platyceras gebhardi Conrad. Annual report on the paleontology of New York. 1840. p. 206.
Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 29.
Oriskanian Becraft mountain, Hudson N. Y.

Platyceras incile Hall

3384 $\frac{10312}{1}$ TYPE Platyceras incile Hall. Paleontology of New York. 1859. 3:332, pl. 63, fig. 10.
Helderbergian Schoharie N. Y.

3385 $\frac{10312}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 12.
Helderbergian Schoharie N. Y.

Platyceras nodosum Conrad

3386 $\frac{10313}{1}$ HYPOTYPE Platyceras nodosus Conrad. Annual report on the paleontology of New York. 1841. p. 56.
Hall. Paleontology of New York. 1859. v. 3, pl. 115, fig. 2.
Oriskanian Schoharie N. Y.

3387 $\frac{10313}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 1.
Oriskanian Schoharie N. Y.

3388 $\frac{10313}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 2.
Oriskanian Schoharie N. Y.

3389 $\frac{10313}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 116, fig. 3, 4.
Oriskanian Schoharie N. Y.

Platyceras perlatum Hall

3390 $\frac{10314}{1}$ HYPOTYPE Platyceras perlatum Hall. Paleontology of New York. 1859. 3:328, pl. 61, fig. 4a, 4b.
Helderbergian Schoharie county, N. Y.

Platyceras pileiforme Hall

3391 $\frac{10315}{1}$ TYPE Platyceras pileiforme Hall. Paleontology of New York. 1859. 3:332, pl. 61, fig. 3a.
Helderbergian Schoharie N. Y.

Platyceras platystoma Hall

10316/1 TYPE Platyceras platystomum Hall. Paleontology of New York. 1859. 3:326, pl. 60, fig. 2.
Helderbergian Schoharie N. Y.

Platyceras plicatum Conrad (sp.)

10317/1 HYPOTYPE Calceola plicata Conrad. Annual report on the paleontology of New York. 1840. p. 207.
Platyceras plicatum Hall. Paleontology of New York. 1859. v. 3, pl. 64, fig. 2.
Helderbergian Schoharie N. Y.

10317/2 HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 64, fig. 5.
Helderbergian Schoharie N. Y.

Platyceras retrorsum Hall

10318/1 TYPE Platyceras retrorsum Hall. Paleontology of New York. 1859. 3:320, pl. 58, fig. 10a, 10b.
Helderbergian Albany county, N. Y.

Platyceras retrorsum *var.* **abnorme** Hall

10319/1 TYPE Platyceras retrorsum var. abnormis Hall. Paleontology of New York. 1859. 3:321, pl. 60, fig. 4a–4c.
Helderbergian Schoharie N. Y.

Platyceras rictum Hall.

10320/1 TYPE Platyceras rictum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 7.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 4, fig. 12–14.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 4, fig. 12–14.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Platyceras sinuatum Hall

10321/1 TYPE Platyceras sinuatum Hall. Paleontology of New York. 1859. 3:314, pl. 55, fig. 5.
Helderbergian Schoharie N. Y.

Platyceras spirale Hall

10322/1 TYPE Platyceras spirale Hall. Paleontology of New York. 1859. 3:331, pl. 63, fig. 6.
Helderbergian Schoharie N. Y.

3400 $\frac{10322}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 8.
Helderbergian Schoharie N. Y.

3401 $\frac{10322}{3}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 63, fig. 9a, 9b.
Helderbergian Schoharie N. Y.

Platyceras symmetricum Hall

3402 $\frac{10323}{1}$ TYPE Platyceras symmetricum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 6.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 22–24.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 22–24.
Hamilton shales West Bloomfield, Ontario co. N. Y.

Platyceras thetis Hall

3403 $\frac{10324}{1}$ TYPE Platyceras thetis Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 4.
Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 13, 14.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 13, 14.
Hamilton shales West Bloomfield, Ontario co. N. Y.

3404 $\frac{10324}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 15.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 15.
Hamilton shales Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

3405 $\frac{10324}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 16.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 3, fig. 16.
Hamilton shales Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Platyceras thetis? *var.* subspinosum Hall

3406 $\frac{10325}{1}$ TYPE Platyceras thetis? var. subspinosum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 3, fig. 30.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 9, pl. 3, fig. 30.

Hamilton shales Canandaigua lake, N. Y.

Platyceras trilobatum Hall

10326/1 TYPE Platyceras trilobatum Hall. Paleontology of New York. 1859. 3:316, pl. 57, fig. 5a–5c.

Helderbergian Schoharie N. Y.

Platyceras undatum Hall

10327/1 TYPE Platyceras undatum Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl 7, fig. 1, 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 17, pl. 7, fig. 1, 2.

Onondaga limestone Schoharie N. Y.

Platyceras ventricosum Conrad

10328/1 HYPOTYPE Platyceras ventricosum Conrad. Annual report on the paleontology of New York. 1840. p. 206.

Hall. Paleontology of New York. 1859. v. 3, pl. 56, fig. 3a, 3b.

Helderbergian Schoharie N. Y.

Platyceras ventricosum *see* Diaphorostoma ventricosum

Platyostoma aplata *see* Diaphorostoma aplatum

Platyostoma euomphaloides *see* Diaphorostoma euomphaloides

Platyostoma lineata *see* Diaphorostoma lineatum

Platyostoma lineata var. ampla *see* Diaphorostoma lineatum *var.* amplum

Platyostoma lineata var. callosa *see* Diaphorostoma lineatum *var.* callosum

Platyostoma turbinata *see* Diaphorostoma turbinatum

Platyostoma turbinata var. *see* Diaphorostoma turbinatum *var.*

Platyostoma sp. *see* Diaphorostoma sp.

PLEURONOTUS Hall

Pleuronotus decewi Billings (sp.)

3410 $\frac{10340}{1}$ HYPOTYPE Euomphalus decewi Billings. Canadian journal. 1861. p. 358.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 15, fig. 1.

Pleuronotus decewi Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 15, fig. 1.

Onondaga limestone Schoharie N. Y.

PLEUROTOMARIA Defrance

Pleurotomaria *see* Holopea paludiniformis

Pleurotomaria (sp. indet.) Hall

3411 $\frac{10360}{1}$ HYPOTYPE Pleurotomaria sp. indet. Hall. Paleontology of New York. 1847. 1 : 305, pl. 83, fig. 5a.

Lorraine beds Turin, Lewis co. N. Y.

3412 $\frac{10360}{2}$ HYPOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 83, fig. 5b.

Lorraine beds Turin N. Y.

Pleurotomaria ambigua Hall

3413 $\frac{10380}{1}$ PLASTOTYPE Pleurotomaria ambigua Hall. Paleontology of New York. 1847. 1 : 176, pl. 38, fig. 3a, 3b.

Trenton limestone Adams, Jefferson co. N. Y.

Pleurotomaria antiquata Hall

3414 $\frac{10381}{1}$ TYPE Pleurotomaria antiquata Hall. Paleontology of New York. 1847. 1 : 31, pl. 7, fig. 1.

Chazy limestone Chazy, Clinton co. N. Y.

Pleurotomaria arata Hall

3415 $\frac{10382}{1}$ TYPE Pleurotomaria arata Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 14.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 5, fig. 13.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 17, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 17, fig. 7.

Schoharie grit Schoharie N. Y.

Pleurotomaria capillaria Conrad

10382/1 HYPOTYPE Pleurotomaria capillaria Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:271.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 20.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 20.

Hamilton shales — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

10382/2 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 21.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 21.

Hamilton shales — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

10382/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 7.

Hamilton shales — Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Pleurotomaria capillaria Conrad *var.* rustica Hall

10384/1 TYPE Pleurotomaria capillaria var. rustica Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 87, pl. 30, fig. 6, 21.

Hamilton shales — York, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

10384/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 20.

Hamilton shales — York N. Y.
C. A. White and C. Van Deloo, coll. 1860

10384/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 22.

Hamilton shales — Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Pleurotomaria doris *see* Cyclonema doris

Pleurotomaria ella Hall

10385/1 TYPE Pleurotomaria ella Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 19, fig. 26-29.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 72, pl. 20, fig. 22–25.

Hamilton shales — York N. Y.

C. Van Deloo, coll. 1865

Pleurotomaria filitexta Hall

3423 10386/1 TYPE Pleurotomaria filitexta Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 19, fig. 30, 31.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 73, pl. 20, fig. 26, 27.

Hamilton shales — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

3324 10386/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 15.

Hamilton shales — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

3425 10386/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 16.

Hamilton shales — Canandaigua lake, N. Y.

3426 10386/4 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 17.

Hamilton shales — Bellona N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

Pleurotomaria indenta Hall

3427 10387/1 HYPOTYPE Pleurotomaria indenta Hall. Paleontology of New York. 1847. 1: 176, pl. 38, fig. 2.

Trenton limestone — Middleville, Herkimer co. N. Y.

Pleurotomaria insolita Hall

3428 10388/1 TYPE Pleurotomaria insolita Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 26.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 81, pl. 21, fig. 17; pl. 30, fig. 3.

Hamilton shales — Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Pleurotomaria isaacsi *see* Pleurotomaria macisaacsi

Pleurotomaria itys Conrad

3429 10389/1 HYPOTYPE Pleurotomaria itys Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8: 271.

Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 8.

Hall. Paleontology of New York. 1879 v. 5, pt 2, pl. 20, fig. 8.

Hamilton shales Bellona N. Y.

C. A. White and C. Van Deloo, coll. 1860

89 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 12, 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 11, 12.

Hamilton shales Western New York

Pickett collection

89 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 14, 16.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 14, 16.

Hamilton shales Pratt's falls, Onondaga co. N. Y.

G. B. Simpson, coll. 1863

89 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 15, 17.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 20, fig. 15, 17.

Hamilton shales York N. Y.

C. Van Deloo, coll. 1865

Pleurotomaria itys *var.* tenuispira Hall

90 TYPE Pleurotomaria itys var. tenuispira Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 87, pl. 30, fig. 5, 25.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. Van Deloo, coll. 1864

Pleurotomaria lenticularis *see* Raphistoma lenticulare

Pleurotomaria lucina Hall

91 HYPOTYPE Pleurotomaria lucina Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 276.

? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 30, fig. 24.

Onondaga limestone Clarence Hollow, Erie co. N. Y.

Pleurotomaria macisaacsi Hall & Whitfield (*emend.*)

3435 10302 TYPE Pleurctomaria isaacsi Hall & Whitfield. 23d annual report of the New York state cabinet of natural history. 1873. p. 238, pl. 12, fig. 6, 7.

Onondaga stage? (Waterloo beds)

Near Raymond station, Ia.

Mr McIsaacs donor, Waterloo Ia.

Pleurotomaria nitella Hall

3436 10303 TYPE Pleurotomaria nitella Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 85, pl. 30, fig. 4, 19.

Onondaga limestone Jamesville, Onondaga co. N. Y.

C. A. White, coll. 1860

Pleurotomaria? nodulosa Hall

3437 10304 TYPE Pleurotomaria? nodulosa Hall. Paleontology of New York. 1837. 1:44, pl. 10, fig 10.

Lowville limestone Tribes Hill, Montgomery co. N. Y.

Pleurotomaria? obsoleta Hall

3438 10305 TYPE Pleurotomaria? obsoleta Hall. Paleontology of New York. 1847. 1:44, pl. 10, fig. 11.

Lowville l mestone Watertown, Jefferson co. N. Y.

Pleurotomaria planidorsalis Hall

3439 10306 TYPE Pleurotomaria planidorsalis Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 20, fig. 28, 29.

Hall. Paleontology of New York. 1879. v. 5, pt 2. p. 82, pl. 20, fig. 21, 22.

Hamilton shales Eighteen Mile creek, Erie co. N. Y.

C. A. White, coll. 1860

Pleurotomaria quadricarinata Hall

3440 10307 TYPE Pleurotomaria quadricarinata Hall. Paleontology of New York. 1847. 1:43, pl. 10, fig. 8.

Lowville limestone Watertown, Jefferson co. N. Y.

Pleurotomaria quadrilix Hall

3441 10308 TYPE Pleurotomaria quadrilix Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 86, pl. 30, fig. 12, 18.

Onondaga limestone Bridgewater, Oneida co. N. Y.

C. A. White, coll. 1861

Pleurotomaria rochana Hartt & Rathbun

10399/1 TYPE: PLASTOTYPE Pleurotomaria rochana Hartt & Rathbun. Annals of the New York lyceum of natural history. 1875. 11:114.

Clarke. Archivos do Museú nacional do Rio de Janeiro. 1899. v. 10, pl. 4, fig. 17.

Ereré sandstone (Middle Devonic) Ereré, Pará, Brazil
O. A. Derby, donor

Pleurotomaria subconica Hall

10400/1 HYPOTYPE Pleurotomaria subconica Hall. Paleontology of New York. 1847. 1:174, pl. 37, fig. 8d, 8e.

Trenton limestone Watertown, Jefferson co. N. Y.

Pleurotomaria subdepressa Hall

10401/1 TYPE Pleurotomaria subdepressa Hall. Paleontology of New York. 1852. 2:334, pl. 76, fig. 2a, 2b.

Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Pleurotomaria umbilicata Hall

10402/1 TYPE Pleurotomaria umbilicata Hall. Paleontology of New York. 1847. 1:43, pl. 10, fig. 9b.

Lowville limestone Watertown, Jefferson co. N. Y.

10402/2 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9c.

Lowville limestone Watertown N. Y.

10402/3 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9g.

Lowville limestone Watertown N. Y.

10402/4 TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 10, fig. 9h.

Lowville limestone Watertown N. Y.

10402/5 TYPE Hall. Paleontology of New York. 1847. 1:175, pl. 38, fig. 1d, 1e, 1f.

Trenton limestone Middleville, Herkimer co. N. Y.

PORCELLIA Leveille

Porcellia nais Hall

10420/1 HYPOTYPE Porcellia nais Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 40.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 26, fig. 28.

Chemung beds Ithaca N. Y.

J. W. Hall and C. Van Deloo, coll. 1866

PROTOCALYPTRAEA Clarke

Protocalyptraea marshalli Clarke

3451 $\frac{10430}{1}$ TYPE Protocalyptraea marshalli Clarke. American geologist. 1894. 13:334; p. 332, fig. 10, 11; p. 333, fig. 12.

Portage (Naples) beds

Whetstone gully near Honeoye lake, N. Y.

J. M. Clarke donor

Protocalyptraea styliophila Clarke

3452 $\frac{10431}{1}$ TYPE Protocalyptraea styliophila Clarke. American geologist. 1894. 13:334; p. 333, fig. 13.

Genesee (Styliola) limestone Canandaigua lake, N. Y.

J. M. Clarke donor

RAPHISTOMA Hall

Raphistoma lenticulare Emmons (sp.)

3453 $\frac{10440}{1}$ TYPE Pleurotomaria lenticularis Emmons. Geology of New York; report on the 2d district. 1842. p. 392.

Hall. Paleontology of New York. 1847. v. 1, pl. 37, fig. 6a, 6b.

Trenton limestone Watertown, Jefferson co. N. Y.

3454 $\frac{11440}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 37, fig. 6c, 6d.

Trenton limestone Watertown N. Y.

Raphistoma planistria Hall

3455 $\frac{10441}{1}$ TYPE Raphistoma planistria Hall. Paleontology of New York. 1847. 1:30, pl. 6, fig. 3b.

Chazy limestone Chazy, Clinton co. N. Y.

Raphistoma stamineum Hall

3456 $\frac{10442}{1}$ TYPE Raphistoma staminea Hall. Paleontology of New York. 1847. 1:29, pl 6, fig. 5, 5a.

Chazy limestone Chazy, Clinton co. N. Y.

Raphistoma striatum Emmons (sp.)

10418/1 TYPE Maclurea striatus Emmons. Geology of New York; report on the 2d district. 1842. p. 312, fig. 3.
Hall. Paleontology of New York. 1847. v. 1, pl. 6, fig. 2a, 2b.
Chazy limestone — Chazy, Clinton co. N. Y.

SCALITES Emmons

Scalites angulatus Emmons

10460/1 HYPOTYPE Scalites angulatus Emmons. Geology of New York; report on the 2d district. 1842. p. 312.
Hall. Paleontology of New York. 1847. v. 1, pl. 6, fig. 1b.
Chazy limestone — Chazy, Clinton co. N. Y.

SCENELLA Billings

Scenella retusa Ford

10480/1 TYPE Scenella retusa Ford. American journal of science and arts, ser. 3. 1873. 5:214, fig. 2a, 2b.
Walcott. Bulletin of the United States geological survey, no. 30. pl. 12, fig. 3.
Walcott. 10th annual report of the United States geological survey. 1890. pl. 73, fig. 6.
Lower Cambric — Troy N. Y.
S. W. Ford purchase

SCHIZOSTOMA Bronn

Schizostoma complanatum Vanuxem (sp.)

10500/1 HYPOTYPE Ophileta complanata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 36.
Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 6.
Beekmantown limestone — Canajoharie N. Y.

Schizostoma levatum Vanuxem (sp.)

10501/1 HYPOTYPE Ophileta levata Vanuxem. Geology of New York; report on the 3d district. 1842. p. 36.
Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 4.
Beekmantown limestone — Canajoharie N. Y.

3462 $\frac{10501}{2}$ HYPOTYPE Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 5.

Beekmantown limestone — Canajoharie N. Y.

STRAPAROLLUS Montfort

Straparollus clymenioides Hall

3463 $\frac{10520}{1}$ TYPE: PLASTOTYPE Euomphalus clymenioides Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 26.

Euomphalus (Straparollus) clymenioides Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 6, fig. 3.

Schoharie grit — Schoharie N. Y.

3464 $\frac{10520}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 15.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 15.

Schoharie grit — Schoharie N. Y.

3465 $\frac{10520}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 27, fig. 5.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

3466 $\frac{10520}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 1.

Schoharie grit — Schoharie N. Y.

3467 $\frac{10520}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 2.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

3468 $\frac{10520}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

105/20/7 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 4.

Schoharie grit — Schoharie N. Y.

105/20/8 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 5.

Schoharie grit — Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

Straparollus hecale Hall

105/21/1 TYPE: PLASTOTYPE Euomphalus hecale Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 10.

Euomphalus (Straparollus) hecale Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 59, pl. 16, fig. 10.

Chemung beds — Meadville Pa.
C. Van Deloo, coll. 1863

105/21/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 12.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 12.

Ithaca beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

105/21/3 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 13.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 13.

Chemung (?) beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

105/21/4 TYPE Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 16, fig. 14.

Chemung (?) beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Straparollus hecale *var.* corpulens Hall

3475 $\frac{10522}{1}$ TYPE Euomphalus (Straparollus) hecale var. corpulens Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 59, pl. 27, fig. 7.

Chemung beds — Mansfield, Tioga co. N. Y. A. Sherwood, coll. 1871

Straparollus inops Hall

3476 $\frac{10523}{1}$ TYPE Euomphalus inops Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 5.

Euomphalus (Straparollus) inops Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 58, pl. 16, fig. 5.

Schoharie grit — Schoharie N. Y.

Straparollus rudis Hall

3477 $\frac{10524}{1}$ TYPE Euomphalus rudis Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, pl. 16, fig. 7.

Euomphalus (Straparollus) rudis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 58, pl. 16, fig. 7.

Hamilton shales — West Bloomfield, Ontario co. N. Y. C. A. White and C. Van Deloo, coll. 1860

STROPHOSTYLUS Hall

Strophostylus expansus Conrad (sp.)

3478 $\frac{10540}{1}$ TYPE Platyceras expansus Conrad. Annual report on the paleontology of New York. 1841. p. 55.

Strophostylus expansus Hall. Paleontology of New York. 1859. v. 3, pl. 114, fig. 2.

Oriskanian — Schoharie county, N. Y.

3479 $\frac{10540}{2}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 3, fig. 24.

Oriskanian — Becraft mountain, Hudson N. Y.

Strophostylus fitchi Hall

3480 $\frac{10541}{1}$ TYPE Strophostylus fitchi Hall. Paleontology of New York. 1859. 3 : 306, pl. 67, fig. 2a, 2b.

Helderbergian — Carlisle, Schoharie co. N. Y.

3481 $\frac{10541}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 67, fig. 2c.

Helderbergian — Carlisle N. Y.

Subulites abbreviatus *see* Cyrtospira abbreviata

Turbo? obscura *see* Holopea obscura

PTEROPODA

CONULARIA Miller

Conularia cayuga Hall

2 $\frac{11000}{1}$ TYPE: PLASTOTYPE Conularia cayuga Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 2, 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 211, pl. 34, fig. 2, 5.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Conularia congregata Hall

3 $\frac{11001}{1}$ TYPE Conularia congregata Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 214, pl. 34, fig. 1; pl. 34A, fig. 9.

Ithaca beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

4 $\frac{11001}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 11.

Ithaca beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Conularia continens Hall

5 $\frac{11002}{1}$ TYPE Conularia continens Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 4, 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 212, pl. 34, fig. 3, 4.

Marcellus shale Bridgewater, Oneida co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
On slab with type of Pal. N. Y. v. 5, pt 2, pl. 34, fig. 6.

6 $\frac{11002}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 28, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34, fig. 6.

Marcellus shale Bridgewater, Oneida co. N. Y.
F. B. Meek, R. P. Whitfield and C. Van Deloo, coll. 1857
On slab with type of Pal. N. Y. v. 5, pt 2, pl. 34, fig. 3, 4.

Conularia continens *var.* rudis Hall

7 $\frac{11003}{1}$ TYPE Conularia continens var. rudis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 215, pl. 34A, fig. 7, 8.

Hamilton beds Schoharie county, N

Conularia huntiana Hall

3488 $\frac{11001}{1}$ TYPE Conularia huntiana Hall. Paleontology of New York. 1859. 3:348, pl. 72A, fig. 2a, 2b.

New Scotland beds — Schoharie N. Y.

Conularia infrequens Hall

3489 $\frac{11005}{1}$ TYPE Conularia infrequens Hall. 11th annual report of the Indiana state geologist. 1882. p. 321, pl. 33, fig. 7.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Conularia lata Hall

3490 $\frac{11006}{1}$ TYPE Conularia lata Hall. Paleontology of New York. 1859. 3:479, pl. 111, fig. 1.

Oriskanian — Schoharie N. Y.

J. Gebhard purchase

Conularia newberryi Winchell

3491 $\frac{11007}{1}$ HYPOTYPE Conularia newberryi Winchell. Proceedings of the Academy of natural sciences of Philadelphia. 1865. p. 130.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 12.

Waverly group — Richfield O.

C. A. White, coll. 1861

Conularia trentonensis Hall

3492 $\frac{11008}{1}$ TYPE Conularia trentonensis Hall. Paleontology of New York. 1847. 1:222, pl. 59, fig. 4a.

Trenton limestone — Middleville, Herkimer co. N. Y.

Geological survey collection

Conularia undulata (Conrad) Hall

3493 $\frac{11009}{1}$ TYPE Conularia undulata Conrad. Annual report on the paleontology of New York. 1841. p. 57.

Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 29, fig. 1, 2, 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 33, fig. 1, 2, 7.

Hamilton beds — Cazenovia, Madison co. N. Y.

James Hall, coll. 1872

1012 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 34A, fig. 2, 3.
Hamilton beds Morrisville, Madison co. N. Y.
Simms collection

Hyolithes aclis *see* Hyolithus aclis

Hyolithes centennialis *see* Hyolithus centennialis

Hyolithes emmonsi *see* Hyolithus communis *var.* emmonsi

Hyolithes impar *see* Hyolithus impar

Hyolithes ligea *see* Hyolithus ligea

Hyolithes principalis *see* Hyolithus principalis

Hyolithes striatus *see* Hyolithus striatus

HYOLITHUS Eichwald

Hyolithus aclis Hall

1020/1 TYPE Hyolithes aclis Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 5–7.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 197, pl. 32, fig 22–24.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

1020/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 25.
Hamilton beds Bellona N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

1020/3 TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 10.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 27.
Hamilton beds Cayuga lake, N. Y.
H. H. Smith, coll. 1871

1020/4 TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 11.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 28; pl. 32A, fig. 25.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

1020/5 TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 9.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 29.
Hamilton beds Norton's landing, N. Y.
H. H. Smith, coll. 187

3500 $\frac{11920}{8}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 31.
Hamilton beds — Norton's landing, N. Y.
H. H. Smith, coll. 1871

3501 $\frac{11920}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32A, fig. 23.
Hamilton beds — Onondaga county, N. Y.

Hyolithus centennialis Barrett

3502 $\frac{11921}{1}$ HYPOTYPE Hyolithes centennialis Barrett. Annals of the New York lyceum of natural history. 1877. 11 : 299.
Hall. Paleontology of New York 1888. v. 5, pt 2, supplement (= v. 7), pl. 114, fig. 22.
Port Ewen beds (Helderbergian) — Port Jervis, Orange co. N. Y.
S. T. Barrett, donor

3503 $\frac{11921}{2}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), pl. 114, fig. 23.
Port Ewen beds (Helderbergian) — Port Jervis N. Y.
S. T. Barrett, donor

Hyolithus ceratophilus Clarke

3504 $\frac{11922}{1}$ TYPE Hyolithus ceratophilus Clarke. 13th annual report of the New York state geologist. 1894. 1 : 172, pl. 4, fig. 17, 18.
Onondaga limestone — Geneva N. Y.
D. F. Lincoln, donor

Hyolithus communis Billings *var.* emmonsi Ford

3505 $\frac{11923}{1}$ TYPE Hyolithes emmonsi Ford. American journal of science and arts, ser. 3. 1873. 5 : 214, fig. 3a, 3b.
Lower Cambric — Troy N. Y.
S. W. Ford purchase

3506 $\frac{11923}{2}$ TYPE Ford. American journal of science and arts, ser. 3. 1873. 5 : 214, fig. 3c.
Lower Cambric — Troy N. Y.
S. W. Ford purchase

Hyolithus impar Ford

924/1 TYPE Hyolithes impar Ford. American journal of science and arts, ser. 3. 1872. 3:419, fig. 1a, 1b, 2a.
Walcott. United States geological survey bulletin 30. 1886. pl. 14, fig. 1, 1a, 1c.
Walcott. 10th annual report of the United States geological survey. 1890. pl. 77, fig. 1, 1a, 1c.
Lower Cambric — Troy N. Y.
S. W. Ford purchase

924/2 TYPE Ford. American journal of science and arts, ser. 3. 1872. 3:419, fig. 2b.
Lower Cambric — Troy N. Y.
S. W. Ford purchase

924/3 ?TYPE Ford. American journal of science and arts, ser. 3. 1872. 3:419 (operculum, not figured).
Lower Cambric — Troy N. Y.
S. W. Ford purchase

Hyolithus ligea Hall

925/1 TYPE Theca ligea Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 34.
Hyolithes ligea Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 15.
Schoharie grit — Schoharie N. Y.

925/2 TYPE? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 16.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Hyolithus principalis Hall

1926/1 TYPE: PLASTOTYPE Hyolithes principalis Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 20.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 196, pl. 32, fig. 20.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

1926/2 TYPE: HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 32, fig. 21.
Schoharie grit — Schoharie N. Y.

Hyolithus rhine Ruedemann

3514 $\frac{11021}{1}$ TYPE Hyolithus rhine Ruedemann. New York state museum bulletin 49. 1901. p. 36, pl. 2, fig. 12–15.
Trenton conglomerate Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Hyolithus striatus Hall

3515 $\frac{11028}{1}$ TYPE Hyolithes striatus Hall. Illustrations of Devonian fossils. 1876. Pteropoda, pl. 27, fig. 12.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 199, pl. 32, fig. 34; pl. 32A, fig. 26
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Styliola fissurella *see* Styliolina fissurella

Styliola fissurella var. intermittens *see* Styliolina fissurella *var.* intermittens

Styliola fissurella var. strigata *see* Styliolina fissurella *var.* strigata

Styliola obtusa *see* Styliolina obtusa

Styliola spica *see* Styliolina spica

STYLIOLINA Karpinsky

Styliolina fissurella Hall (sp.)

3516 $\frac{11040}{1}$ HYPOTYPE Tentaculites fissurella Hall. Geology of New York; report on the 4th district. 1843. p. 180.
Styliola fissurella Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 8.
Genesee slate Alden, Erie co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

3517 $\frac{11040}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 9.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with types of S. fissurella var. intermittens, pl. 31A, fig. 11, 12, 15, 16a, 16b, 16c.

3518 $\frac{11040}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 13.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

9 11040/4 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 18.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

0 11040/5 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 19.
Genesee slate Alden N. Y.

1 11040/6 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 22.
Genesee slate Lexington, Scott co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

2 11040/7 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 23.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

3 11040/8 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 24.
Genesee slate Alden N. Y.
On slab with type of S. fissurella var. intermittens, pl. 31A, fig. 17.

4 11040/9 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 26.
Marcellus shale Littleville, near West Avon, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of pl. 31A, fig. 27.

5 11040/10 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 27.
Marcellus shale Littleville, near West Avon N. Y.
C. A. White and C. Van Deloo, coll. 1860
On slab with type of pl. 31A, fig. 26.

6 11040/11 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 28.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
On slab with type of S. obtusa, pl. 31A, fig. 36.

Styliolina fissurella *var.* **intermittens** Hall (sp.)

7 11041/1 TYPE Styliola fissurella var. intermittens Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 18, pl. 31A, fig. 11.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3528 $\frac{11041}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 12.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3529 $\frac{11041}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 15.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3530 $\frac{11041}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 16a.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3531 $\frac{11041}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 16b.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3532 $\frac{11041}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 16c.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 9.

3533 $\frac{11041}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 17.
Genesee slate Alden N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878
On slab with type of S. fissurella, pl. 31A, fig. 24.

Styliolina fissurella *var.* strigata Hall (sp.)

3534 $\frac{11012}{1}$ TYPE Styliola fissurella var. strigata Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 181, pl. 31A, fig. 31.
Marcellus shale Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

3535 $\frac{11042}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig 32.
Marcellus shale Cherry Valley N. Y.
J. W. Hall, coll. 1877

Styliolina obtusa Hall (sp.)

3536 $\frac{11042}{1}$ TYPE Styliola obtusa Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 182, pl. 31A, fig. 34.
Hamilton beds Darien Center, Genesee co. N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 35.

3537 $\frac{11042}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 35.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of pl. 31A, fig. 34.

3538 $\frac{11042}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 31A, fig. 36.
Hamilton beds Darien Center N. Y.
C. A. White, coll. 1860
On slab with type of S. fissurella, pl. 31A, fig. 28.

Styliolina spica Hall (sp.)

3539 $\frac{11044}{1}$ TYPE Styliola spica Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), pl. 114, fig. 28.
Hamilton beds Bellona, Yates co. N. Y.
C. Van Deloo, coll. 1864
On slab with type of Stictopora permarginata, v. 6, pl. 63, fig. 16.

Tentaculites fissurella *see* Styliolina fissurella
Theca ligea *see* Hyolithus ligea

CEPHALOPODA

AGONIATITES Meek

Agoniatites expansus Vanuxem (sp.)

3540 $\frac{12000}{1}$ HYPOTYPE Goniatites expansus Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146.
Goniatites vanuxemi Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 68, fig. 1.
Goniatites vanuxemi Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 68, fig. 1.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
L. Lincklaen, donor

3541 $\frac{12000}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 3, 4; supplement (= v. 7) 1888. pl. 127, fig. 5, 6.

Marcellus shale (Agoniatite limestone) Manlius, Onondaga co. N. Y.
J. Gebhard purchase

3542 $\frac{12000}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 5

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 5.

Marcellus shale (Agoniatite limestone) Manlius N. Y.
Geological survey collection

3543 $\frac{12000}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 6.

Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
Geological survey collection

3544 $\frac{12000}{5}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), pl. 127, fig. 4.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

3545 $\frac{12000}{6}$ HYPOTYPE Agoniatites expansus Clarke. 16th annual report of the New York state geologist. 1898. p. 168, fig. 6.

Marcellus shale (Agoniatite limestone) Manlius N. Y.
J. M. Clarke, donor

Agoniatites expansus Vanuxem *var.* **nodiferus** Hall

3546 $\frac{12001}{1}$ TYPE Goniatites vanuxemi var. nodiferus Hall. 5th annual report of the New York state geologist. 1886. pl. (127) 12, fig. 7.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 39, pl. 127, fig. 7.

Marcellus shale (Agoniatite limestone)
Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

Agoniatites? unilobatus Hall

$\frac{2002}{1}$ TYPE Goniatites unilobatus Hall. Description of new species of Goniatitidae. 1874. p. 1.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 15, 16; pl. 74, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 15, 16; pl. 74, fig 5.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

ANARCESTES Mojsisovics

Anarcestes plebeiformis Hall

$\frac{2020}{1}$ TYPE Porcellia? rotatoria Hall. Illustrations of Devonian fossils. 1876. Gasteropoda, explanation of pl. 16.

Goniatites plebeiformis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 448, pl. 110, fig. 3.

Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

$\frac{2020}{2}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig 4.

Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.

$\frac{2020}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 5.

Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. W. Hall, coll. 1877

$\frac{2020}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 6.

Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. W. Hall, coll. 1877

$\frac{2020}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 7.

Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. W. Hall, coll. 1877

3553 $\frac{12020}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 8.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. W. Hall, coll. 1877

3554 $\frac{12020}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 110, fig. 9.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.

3555 $\frac{12020}{8}$ HYPOTYPE Anarcestes plebeiformis Clarke. 16th annual report of the New York state geologist. 1898. p. 165, fig. 1.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. M. Clarke, donor

3556 $\frac{12020}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 165, fig. 2.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. M. Clarke, donor

3557 $\frac{12020}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 166, fig. 3.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. M. Clarke, donor

3558 $\frac{12020}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 166, fig. 4.
Marcellus shale (Anarcestes limestone)
Cox's falls, Cherry Valley N. Y.
J. M. Clarke, donor

BACTRITES Sandberger

Bactrites aciculum Hall (sp.)

3559 $\frac{12040}{1}$ HYPOTYPE Orthoceras aciculum Hall. Geology of New York; report on the 4th district. 1843. p. 243.
Ceratiocaris longicaudus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 73, pl. 1, fig. 4.
Genesee shale Bristol Center, Ontario co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

12040/2 HYPOTYPE Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 5.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

12040/3 HYPOTYPE Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 6.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

12040/4 HYPOTYPE Clarke. American geologist. 1894. v. 14, pl. 2, fig. 9.
Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

12040/5 HYPOTYPE Bactrites aciculum Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 17.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12040/6 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 18.
Genesee shale (Styliola limestone)
Livingston county, N. Y.
J. M. Clarke, donor

12040/7 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 19.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12040/8 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 20–22.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Bactrites clavus Hall

12041/1 TYPE Bactrites clavus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 316, pl. 84, fig. 15; pl. 113, fig. 1–5.
Marcellus shale Schoharie N. Y.
J. Gebhard purchase

Bactrites gracilior Clarke

3568 $\frac{12042}{1}$ TYPE Bactrites gracilior Clarke. 16th annual report of the New York state geologist. 1898. p. 124, pl. 9, fig. 1.
Genesee shale (Styliola limestone)
Genesee county, N. Y.
J. M. Clarke, donor

3569 $\frac{12042}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 2.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3570 $\frac{12042}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 3.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3571 $\frac{12042}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 4.
Portage (Naples) beds Attica N. Y.
J. M. Clarke, donor

3572 $\frac{12042}{5}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 5.
Portage (Naples) beds Attica N. Y.
J. M. Clarke, donor

3573 $\frac{12042}{6}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 6.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

3574 $\frac{12042}{7}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 7.
Genesee shale (Styliola limestone)
Livingston county, N. Y.
J. M. Clarke, donor

3575 $\frac{12042}{8}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 8.
Portage (Naples) beds Griswold, Genesee county, N.Y.
D. D. Luther, coll.

3576 $\frac{12042}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 9, 10.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12042/10 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 11, 12.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12042/11 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 13.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12042/12 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 14.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

12042/13 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 15, 16.
Genesee shale (Styliola limestone) Honeoye lake, N. Y.
J. M. Clarke, donor

BELOCERAS Hyatt

Beloceras iynx Clarke

12000/1 TYPE Beloceras iynx Clarke. 16th annual report of the New York state geologist. 1898. p. 103, pl. 7, fig. 11.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12000/2 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 12.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12000/3 TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 103, fig. 78; pl. 7, fig. 13.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12000/4 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 14.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12000/5 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 15.
Portage (Naples) beds Naples N. Y.

3586 $\frac{12060}{8}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

CAMEROCERAS Conrad

Cameroceras duplicatum Hall (sp.)
(= Cameroceras proteiforme Hall)

3587 $\frac{12080}{1}$ TYPE Endoceras duplicatum Hall. Paleontology of New York. 1847. 1: 219, pl. 55, fig. 1.
Trenton limestone Middleville, Herkimer co. N. Y.
J. Gebhard purchase

Cameroceras lativentrum Hall (sp.)

3588 $\frac{12081}{1}$ TYPE Endoceras lativentrum Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 173, pl. 5, fig. 1a, 1b.
Trenton limestone Lowville, Lewis co. N. Y.
Geological survey collection

Cameroceras proteiforme Hall (sp.)

3589 $\frac{12082}{1}$ TYPE Endoceras proteiforme Hall. Paleontology of New York. 1847. 1: 213, pl. 49, fig. 1d.
Trenton limestone Middleville, Herkimer co. N. Y.

Cameroceras proteiforme? *var.* elongatum Hall (sp.)

3590 $\frac{12083}{1}$ TYPE Endoceras proteiforme? var. elongatum Hall. Paleontology of New York. 1847. 1:216, pl. 52, fig. 1.
Trenton limestone Middleville N. Y.

Clymenia neapolitana *see* Cyrtoclymenia neapolitana

CYRTOCERAS Goldfuss

Cyrtoceras absens *see* Gomphoceras absens

Cyrtoceras aemulum *see* Cyrtoceras (Zittelloceras) aemulum

Cyrtoceras (Zitteloceras) aemulum Hall

3591 $\frac{12100}{1}$ TYPE Cyrtoceras aemulum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 371, pl. 97, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3592 12/100 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 2.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3593 12/100 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 3.
Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

3594 12/100 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 4, 5.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3595 12/100 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 6.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3596 12/100 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 8, 9.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Cyrtoceras alternatum Hall

3597 12/101 TYPE Cyrtoceras undulatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 9, 10.
Cyrtoceras alternatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 365, pl. 46, fig. 12, 13.
Marcellus shale (Agoniatites limestone)
Schoharie N. Y.
J. Gebhard purchase

Cyrtoceras citum *see* Cyrtoceras (Zitteloceras) citum

Cyrtoceras (Zittéloceras) citum Hall

3598 12/102 TYPE Cyrtoceras citum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 372, pl. 51, fig. 1, 2.
Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

3599 12/102 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 51, fig. 3.
Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

3600 12/3/02 TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 1.
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

3601 12/4/02 TYPE Hall. Paleontology of New York. 1888 v. 5, pt 2, supplement (v. 7), pl. 124, fig 2.
Onondaga limestone Falkirk, Erie co N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

3602 12/5/02 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 3.
Onondaga limestone Cayuga Ont.
C. D. Walcott, coll. 1878

Cyrtoceras clavatum *see* Gomphoceras (Poterioceras) clavatum

Cyrtoceras eugenium *see* Cyrtoceras (Zitteloceras) eugenium

Cyrtoceras (Zitteloceras) eugenium Hall

3603 12/1/02 TYPE Cyrtoceras eugenium Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 42.
Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 9, fig. 1.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 5, 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3604 12/2/03 HYPOTYPE Hall. Illustrations of Devonian fossils 1876. Cephalopoda, pl. 46, fig. 7.
Hall. Paleontology of New York. 1879 v. 5, pt 2, pl. 47, fig. 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3605 12/3/03 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 16.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

12103/4 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 1.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/5 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 2.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/6 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 3.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/7 HYPOTYPE: HYPOPLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 4.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/8 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 5.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/9 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 6, 7.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/10 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 8, 9.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/11 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 10.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

12103/12 HYPOPLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 96, fig. 11.
Schoharie grit — Schoharie county, N. Y.

12103/13 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 97, fig. 10, 11.
Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

Cyrtoceras filosum (Emmons) Hall

3616 12104 PLASTOTYPE Cyrtoceras filosum Emmons. Geology of New York; report on the 2d district. 1842. p. 392, fig. 4.

Cyrtolites filosum Hall. Paleontology of New York. 1847. v. 1, pl. 41, fig. 3a.

Trenton limestone — Watertown, Jefferson co. N. Y. Geological survey collection

Cyrtoceras (Gomphoceras?) formosum Hall

3617 12105 TYPE Cyrtoceras (Gomphoceras?) formosum Hall. Paleontology of New York. 1879. v. 5, pt 2, p 362, pl. 95, fig. 8, 9.

Hamilton beds — Dresden, Yates co. N. Y.

Cyrtoceras jason *see* Cyrtoceras (Rhyticeras) jason

Cyrtoceras (Rhyticeras) jason Hall

3618 12106 TYPE Cyrtoceras jason Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 43.

Gyroceras (Cyrtoceras?) spinosum Conrad. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 52, fig. 1.

Cyrtoceras jason Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 50, fig. 1.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

3619 12106 TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 52, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 50, fig. 2.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

3620 12106 TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 7.

Schoharie grit — Clarksville N. Y.

Cyrtoceras macrostoma Hall

3621 12107 PLASTOTYPE Cyrtoceras marginalis Conrad. Proceedings of the Academy of natural sciences of Philadelphia. 1843. 1:334.

Cyrtoceras macrostomum Hall. Paleontology of New York. 1847. 1:194, pl. 42, fig. 1b.

Trenton limestone Mineral Point Wis.

Cyrtoceras marginalis *see* Cyrtoceras macrostoma

Cyrtoceras matheri *see* Gyroceras (Halloceras) matheri

Cyrtoceras maximum *see* Nautilus (Nephriticeras) maximus

Cyrtoceras metula Hall

12108/1 TYPE Cyrtoceras metula Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 44.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 11.

Onondaga limestone

Littleville, near Avon, Livingston co. N. Y.

C. Van Deloo, coll. 1878

Cyrtoceras morsum Hall

12102/1 TYPE Cyrtoceras morsum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 43.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 9, fig. 6.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 3, 4.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

Cyrtoceras transversum *see* Gyroceras transversum

Cyrtoceras trivolve *see* Gyroceras (Zittelloceras) trivolve

Cyrtoceras undulatum *see* Cyrtoceras alternatum

Cyrtoceras undulatum *see* Gyroceras (Halloceras) undulatum

CYRTOCLYMENIA (Gümbel) Hyatt

Cyrtoclymenia neapolitana Clarke

3624 $\frac{12}{1}\frac{120}{}$ TYPE Clymenia neapolitana Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 1, 2.
Cyrtoclymenia neapolitana Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 23.
Portage (Naples) beds
Shurtleff's gully, Livingston co. N. Y.
J. M. Clarke, donor

3625 $\frac{12}{2}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 3.
Portage (Naples) beds
Shurtleff's gully, Livingston co. N. Y.
J. M. Clarke, donor

3626 $\frac{12}{3}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 4.
Clarke. 16th annual report of the New York state geologist. 1898. p. 132, fig. 105.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3627 $\frac{12}{4}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 7–9.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3628 $\frac{12}{5}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 10.
Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 21.
Portage (Naples) beds
Shurtleff's gully, N. Y.
J. M. Clarke, donor

3629 $\frac{12}{6}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 11.
Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 25.
Portage (Naples) beds Shurtleff's gully, N. Y.
J. M. Clarke, donor

3630 $\frac{12}{7}\frac{120}{}$ TYPE Clarke. American journal of science, ser. 3. 1892. 43:63, fig. 12.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12120/5 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 19.
Portage (Naples) beds — Shurtleff's gully, N. Y.
J. M. Clarke, donor

12120/9 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8. fig. 20.
Portage (Naples) beds — Shurtleff's gully, N. Y.
J. M. Clarke, donor

12120/10 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 22.
Portage (Naples) beds — Shurtleff's gully, N. Y.
J. M. Clarke, donor

12120/11 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 24.
Portage (Naples) beds — Shurtleff's gully, N. Y.
J. M. Clarke, donor

Cyrtolites filosum *see* Cyrtoceras filosum

Endoceras duplicatum *see* Cameroceras duplicatum

Endoceras lativentrum *see* Cameroceras lativentrum

Endoceras longissimum *see* Vaginoceras longissimum

Endoceras proteiforme *see* Cameroceras proteiforme

Endoceras proteiforme? var. elongatum *see* Cameroceras proteiforme? *var.* elongatum

Endoceras proteiforme var. lineolatum *see* Orthoceras lineolatum

EUDOCERAS Hall

Eudoceras pandum Hall

12140/1 TYPE Trochoceras? (Gonioceras?) pandum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 403, pl. 3, fig. 4.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

12140/2 HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 117, fig. 3.
Schoharie grit — Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

3637 $\frac{12}{3}\frac{140}{}$ HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 117, fig. 5.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

GEPHYROCERAS Hyatt

Gephyroceras cataphractum Clarke

3638 $\frac{12}{1}\frac{160}{}$ TYPE Gephyroceras cataphractum Clarke. 16th annual report of the New York state geologist. 1898. p. 87, pl. 6, fig. 3.
Portage (Naples) beds Java Village, Wyoming co. N. Y.
J. M. Clarke, donor

3639 $\frac{12}{2}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 4.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

3640 $\frac{12}{3}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 5.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

3641 $\frac{12}{4}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 6.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

3642 $\frac{12}{5}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 7.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

3643 $\frac{12}{6}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 8.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

3644 $\frac{12}{7}\frac{160}{}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 9.
Portage (Naples) beds Java Village N. Y.
J. M. Clarke, donor

Gephyroceras? (Probeloceras?) genundewa Clarke

3645 $\frac{12}{1}\frac{161}{}$ TYPE Gephyroceras? (Probeloceras?) genundewa Clarke. 16th annual report of the New York state geologist. 1898. p. 86, pl. 8, fig. 1.
Genesee shale (Styliola limestone)
Genundewa, Canandaigua lake, N. Y.
J. M. Clarke, donor

12161/2 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 2.

Genesee shale (Styliola limestone) Genundewa N. Y.
J. M. Clarke, donor

12161/3 TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 3.

Genesee shale (Styliola limestone)
Bristol, Ontario co. N. Y.
J. M. Clarke, donor

Gephyroceras holzapfeli Clarke

12162/1 TYPE Gephyroceras holzapfeli Clarke. 16th annual report of the New York state geologist. 1898. p. 87, pl. 7, fig. 17.

Portage (Naples) beds
Eighteen Mile creek, Erie co. N. Y.
J. M. Clarke, donor

Gephyroceras perlatum Hall

12163/1 TYPE Goniatites complanatus var. perlatus Hall. Descriptions of new species of Goniatitidae. 1874. p. 1.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 12.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 12.

Portage (Ithaca) beds Homer, Cortland co. N. Y.
Geological survey collection

GOMPHOCERAS Sowerby

Gomphoceras sp.

12180/1 HYPOTYPE Gomphoceras sp. Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 7.

Hamilton beds Skaneateles lake, N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

Gomphoceras absens Hall

12181/1 TYPE Cyrtoceras absens Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 7, 8.

Gomphoceras absens Hall. Paleontology of New York. 1879. v. 5. pt 2, p. 324, pl. 46, fig. 8, 9.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3652 12/1/81 TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 122, fig. 1.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3653 12/1/81 TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 122, fig. 2.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3654 12/1/81 TYPE Hall. Paleontology of New York. 1888. v. 5, pt 2. supplement (=v. 7), pl. 122, fig. 3.
Onondaga limestone — Clarence Hollow, Erie co. N. Y.

Gomphoceras ajax Hall

3655 12/1/82 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 350, pl. 94, fig. 8.
Portage beds — Penn Yan, Yates co. N. Y.
Geological survey collection

Gomphoceras beta Hall

3656 12/1/83 TYPE Gomphoceras beta Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 44.
Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 1.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 4.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3657 12/1/83 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 5.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Gomphoceras clavatum *see* Gomphoceras (Poterioceras) clavatum

Gomphoceras (Poterioceras) clavatum Hall

12/1/84 TYPE Cyrtoceras clavatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, explanation of pl. 47.

Gomphoceras clavatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 323, pl. 93, fig. 3.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Gomphoceras? cruciferum Hall

59 12185/1 TYPE Gomphoceras cruciferum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 328, pl. 93, fig. 4.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Gomphoceras eximium Hall

60 12186/1 PLASTOTYPE Gomphoceras eximium Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 329; supplement (= v. 7). 1888. pl. 121, fig. 2.
Onondaga limestone — Columbus O.

Gomphoceras fax *see* Gomphoceras (Poterioceras) fax

Gomphoceras (Poterioceras) fax Hall

61 12187/1 TYPE Gomphoceras fax Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 321; supplement (= v. 7). 1888. pl. 122, fig. 5.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Gomphoceras illaenus Hall

62 12188/1 TYPE Gomphoceras illaenus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 322; supplement (= v. 7). 1888. pl. 122, fig. 6.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Gomphoceras impar *see* Gomphoceras (Poterioceras) impar

Gomphoceras (Poterioceras) impar Hall

63 12189/1 PLASTOTYPE Gomphoceras impar Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 332; supplement (= v. 7). 1888. pl. 121A, fig. 1.
Onondaga limestone — Columbus O.

Gomphoceras manes Hall

64 12190/1 TYPE Gomphoceras manes Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 339; supplement (= v. 7). 1888. pl. 123, fig. 2.
Genesee *shale* — Alden, Erie co. N.

Gomphoceras mitra Hall

3665 12/1/21 PLASTOTYPE Gomphoceras, mitra Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 330; supplement (= v. 7). 1888. pl. 121, fig. 3.

Onondaga limestone — Columbus O.

Gomphoceras mitriforme Clarke

3666 12/1/22 TYPE Gomphoceras mitriformis Clarke. 13th annual report of the New York state geologist. 1894. 1:171, pl. 3, fig. 1.

Marcellus shale — Chapinville, Ontario co. N. Y. J. M. Clarke, coll.

Gomphoceras nasutum *see* Gomphoceras (Poterioceras) nasutum

Gomphoceras (Poterioceras) nasutum Hall

3667 12/1/23 TYPE Gomphoceras nasutum Hall. 5th annual report of the New York state geologist. 1886. pl. (120) 4, fig. 5–7.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 34, pl. 120, fig. 5–7.

Chemung beds — Belmont, Allegany co. N. Y. A. Sherwood, coll. 1871

Gomphoceras oviforme *see* Gomphoceras (Poterioceras) oviforme

Gomphoceras (Apioceras) oviforme *see* Gomphoceras (Poterioceras) oviforme

Gomphoceras (Poterioceras) oviforme Hall

3668 12/1/24 TYPE Gomphoceras (Apioceras) oviforme Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 105.

Gomphoceras oviforme Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 45, fig. 2, 3.

Gomphoceras oviforme Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 45, fig. 2, 3.

Marcellus shale (Agoniatite limestone) — Schoharie N. Y. J. Gebhard purchase

12/2/24 TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 47, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 6, 7.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

70 12194 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 6.

Marcellus shale (Agoniatite limestone)
Manlius, Onondaga co. N. Y.
James Hall, coll.

71 12194 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 7.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Gomphoceras pingue Hall

72 12195 TYPE Gomphoceras pingue Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 346, pl. 95, fig. 6.

Hamilton beds North of Cazenovia, Madison co. N. Y.
S. G. Williams collection

Gomphoceras? planum Hall

73 12196 TYPE Gomphoceras? planum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 352, pl. 57, fig. 1, 2.

Hamilton beds Borodino, Onondaga co. N. Y.
W. Emmons, donor

Gomphoceras poculum Hall

74 12197 TYPE Gomphoceras poculum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 340, pl. 93, fig. 7, 8.

Hamilton beds Cazenovia N. Y.
L. Lincklaen, donor

Gomphoceras potens Hall

75 12198 TYPE Gomphoceras potens Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 351; supplement (= v. 7). 1888. pl. 122, fig. 8.

Waverly beds Medina, Medina co. O.
C. A. White, coll. 1861

Gomphoceras raphanus *see* Gomphoceras (Poterioceras) raphanus

Gomphoceras (Poterioceras) raphanus Hall

76 12199 TYPE Gomphoceras raphanus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 347, pl. 94, fig. 2, 3.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 187[illegible]

3677 $\frac{12102}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 4.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

3678 $\frac{12102}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 94, fig. 10.
Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1871

Gomphoceras rude Hall

3679 $\frac{12300}{1}$ TYPE Gomphoceras rude Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 327, pl. 93, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Gomphoceras solidum Hall

3680 $\frac{12301}{1}$ TYPE Gomphoceras solidum Hall. Paleontology of New York. v. 5, pt 2, p. 338, pl. 93, fig. 9.
Marcellus shale (Agoniatite limestone)
Manlius, Onondaga co. N. Y.

Gomphoceras tumidum Hall

3681 $\frac{12302}{1}$ TYPE Gomphoceras tumidum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 351, pl. 93, fig. 6.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

3682 $\frac{12302}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 2.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

3683 $\frac{12302}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 3.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

3684 $\frac{12302}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 5.
Chemung beds New Albion, Cattaraugus co. N. Y.
C. Van Deloo, coll. 1863

3685 $\frac{12302}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 95, fig. 7.
Portage (Ithaca) beds Cascadilla quarry, Ithaca N. Y.
S. G. Williams collection

Goniatites amplexus *see* Maeneceras amplexum

Goniatites bicostatus *see* Tornoceras bicostatum

Goniatites chemungensis *see* Sandbergeroceras chemungense

Goniatites chemungensis var. *see* (?) Sandbergeroceras syngonum

Goniatites chemungensis var. aequicostatus *see* Sandbergeroceras chemungense *var.* aequicostatum

Goniatites complanatus var. perlatus *see* Gephyroceras perlatum

Goniatites discoideus *see* Parodiceras discoideum

Goniatites expansus *see* Agoniatites expansus

Goniatites lutheri *see* Probeloceras lutheri

Goniatites marcellensis *see* Nautilus (Discites) marcellensis

Goniatites nodifer *see* Manticoceras nodifer

Goniatites (Clymenia?) nundaia *see* Manticoceras pattersoni

Goniatites patersoni *see* Manticoceras pattersoni

Goniatites peracutus *see* Tornoceras peracutum

Goniatites plebeiformis *see* Anarcestes plebeiformis

Goniatites simulator *see* Manticoceras simulator

Goniatites sinuosus *see* Manticoceras pattersoni

Goniatites uniangularis *see* Tornoceras uniangulare

Goniatites unilobatus *see* Agoniatites unilobatus

Goniatites vanuxemi *see* Agoniatites expansus

Goniatites vanuxemi var. nodiferus *see* Agoniatites expansus *var.* nodiferus

GYROCERAS DeKoninck

Gyroceras cyclops *see* Gyroceras (Rhyticeras) cyclops

Gyroceras (Rhyticeras) cyclops Hall

3686 $\frac{12220}{1}$ TYPE Gyroceras cyclops Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 39.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 102.

Onondaga limestone Clarksville N. Y.

Gyroceras laciniosum Hall

3687 $\frac{12221}{1}$ TYPE Gyroceras laciniosum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 376, pl. 52A, fig. 8.

Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

Gyroceras liratum *see* Nautilus (Nephriticeras) juvenis

Gyroceras liratum *see* Nautilus (Nephriticeras) liratus

Gyroceras matheri *see* Gyroceras (Halloceras) matheri

Gyroceras (Halloceras) matheri (Conrad) Hall

3688 $\frac{12222}{1}$ TYPE Cyrtoceras matheri Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras matheri Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 3.

Gyroceras matheri Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 55, fig. 3, 4.

Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

3689 $\frac{12222}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 55, fig. 5.

Onondaga limestone Clarksville N. Y.

Gyroceras nereus *see* Gyroceras (Zitteloceras) nereus

Gyroceras (Zitteloceras) nereus Hall

3690 $\frac{12223}{1}$ HYPOTYPE Gyroceras nereus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 39.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 124, fig. 4.

Onondaga limestone Cherry Valley, Otsego co. N. Y.

Gyroceras (Halloceras) paucinodus Hall

12224/1 TYPE Gyroceras (Hercoceras) paucinodus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 55, fig. 1–4.

Gyroceras paucinodum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 380, pl. 54, fig. 1–4.

Onondaga limestone Cherry Valley N. Y.
C. A. White, coll. 1860

Gyroceras paucinodum *see* Gyroceras (Halloceras) paucinodus

Gyroceras (Hercoceras) paucinodus *see* Gyroceras (Halloceras) paucinodus

Gyroceras spinosum *see* Gyroceras (Cophinoceras) spinosum

Gyroceras (Cophinoceras) spinosum Conrad (sp.)

12225/1 TYPE Phragmoceras spinosum Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras (Cyrtoceras?) spinosum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 46, fig. 8.

Gyroceras spinosum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 47, fig. 8.

Schoharie grit Schoharie N. Y.
J. Gebhard purchase

12225/2 TYPE Hall. Illustrations of Devonian Fossils. 1876. Cephalopoda, pl. 50, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 1.

Schoharie grit Schoharie N. Y.

12225/3 TYPE Gyroceras sp.? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 2.

Schoharie grit Schoharie N. Y.

12225/4 TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3696 $\frac{12225}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2. pl. 48, fig. 4.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3697 $\frac{12225}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 50, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 48, fig. 5; pl. 98, fig. 7.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3698 $\frac{12225}{7}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 51, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 49, fig. 1.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3699 $\frac{12225}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 98, fig. 1, 2.

Schoharie grit — Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

3700 $\frac{12225}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 98, fig. 5.

Schoharie grit — Schoharie N. Y.

3701 $\frac{12225}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 1.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3702 $\frac{12225}{11}$ TYPE: PLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 2.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3703 $\frac{12225}{12}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99. fig 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

704 $\frac{12225}{13}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 4, 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

705 $\frac{12225}{14}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

706 $\frac{12225}{15}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 99, fig. 8.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Gyroceras (Cyrtoceras?) spinosum *see* Cyrtoceras (Rhyticeras) jason

Gyroceras (Cyrtoceras?) spinosum *see* Gyroceras (Cophinoceras) spinosum

Gyroceras subliratum *see* Nautilus (Nephriticeras) subliratus

Gyroceras transversum Hall

707 $\frac{12226}{1}$ TYPE Cyrtoceras transversum Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 104.
Gyroceras transversum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 1, 2.
Gyroceras transversum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 56, fig. 1, 2.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
L. Lincklaen collection

708 $\frac{12226}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 3, 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 56, fig. 3, 4.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.

Gyroceras trivolvis *see* Gyroceras (Zitteloceras) trivolve

Gyroceras (Zitteloceras) trivolve (Conrad) Hall

709 $\frac{12227}{1}$ TYPE Cyrtoceras trivolvis Conrad. Geological survey of New York; paleontological department; 3d annual report. 1840. p. 206.

Gyroceras trivolvis Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 54, fig. 4, 5; pl. 56, fig. 4.

Gyroceras trivolve Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 1–3.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3710 $\frac{12227}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 4.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3711 $\frac{12227}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52, fig. 5.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3712 $\frac{12227}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 54, fig. 1–3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 1–3.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3713 $\frac{12227}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 4.

Onondaga limestone Schoharie N. Y.

J. Gebhard purchase

3714 $\frac{12227}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 5.

Onondaga limestone Schoharie N. Y.

3715 $\frac{12227}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 6.

Onondaga limestone Cherry Valley N. Y.

3716 $\frac{12227}{8}$ PLASTOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 52A, fig. 7.

Onondaga limestone

Gyroceras undulatum *see* Gyroceras (Halloceras) undulatum

Gyroceras (Halloceras) undulatum Vanuxem (sp.)

3717 $\frac{12228}{1}$ HYPOTYPE Cyrtoceras undulatum Vanuxem. Geology of New York; report on the 3d district. 1842. p. 139.

Gyroceras undulatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 1.
Gyroceras undulatum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 1.
Onondaga limestone — Cherry Valley N. Y.
C. A. White, coll. 1860

3718 $\frac{12228}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 56, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 2.
Onondaga limestone — Cherry Valley N. Y.

3719 $\frac{12228}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 3, 6.
Onondaga limestone — Cherry Valley N. Y.
C. A. White, coll. 1860

3720 $\frac{12228}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 53, fig. 5.
Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

3721 $\frac{12228}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 54, fig. 5.
Onondaga limestone — Cherry Valley N. Y.
C. A. White, coll. 1860

Gyroceras validum Hall

3722 $\frac{12229}{1}$ TYPE Gyroceras validum Hall. Illustrations o Devonian fossils. 1876. Cephalopoda, pl. 51, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 385, pl. 49, fig. 2.
Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

3723 $\frac{12229}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 100, fig. 1.
Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

HORMOCERAS Hall

Hormoceras? gracile Hall

3724 $\frac{12240}{1}$ TYPE Ormoceras? gracile Hall. Paleontology of New York. 1847. 1:58, pl. 17, fig. 3.
Black River limestone — Watertown N. Y.
Albany Institute, donor

Hormoceras remotiseptum Hall

3725 $\frac{12241}{1}$ TYPE Ormoceras remotiseptum Hall. 3d annual report of the New York state cabinet of natural history. 1850. p. 173, pl. 4, fig. 3.

Trenton limestone — Watertown N. Y.
Geological survey collection

Hormoceras tenuifilum Hall

3726 $\frac{12242}{1}$ TYPE Ormoceras tenuifilum Hall. Paleontology of New York. 1847. 1: 55, pl. 15, fig. 1, 1a, 1b; pl. 16, fig. 1a.

Black River limestone — Watertown N. Y.
Albany Institute, donor

3727 $\frac{12242}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 15, fig. 1c.

Black River limestone — Watertown N. Y.

Inachus undatus *see* Trocholites undatus

LITUITES Montfort

Lituites convolvans? Hisinger

3728 $\frac{12260}{1}$ HYPOTYPE Lituites convolvans Hisinger. Petrefacta Suecica. 1837. p. 27.

Lituites convolvans? Hall. Paleontology of New York. 1847. v. 1, pl. 13, fig. 2a.

Black River limestone — Watertown N. Y.
Albany Institute, donor

Lituites undatus *see* Trocholites undatus

MAENECERAS Hyatt

Maeneceras amplexum Hall (sp.)

3729 $\frac{12280}{1}$ TYPE Goniatites amplexus Hall. 5th annual report of the New York state geologist. 1886. pl. 127 (12), fig. 1.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (v. 7), p. 39, pl. 127, fig. 1.

Tully limestone — Lodi, Seneca lake, N. Y.

MANTICOCERAS Hyatt

Manticoceras accelerans Clarke

3730 $\frac{12300}{1}$ TYPE Manticoceras accelerans Clarke. 18th annual report of the New York state geologist. 1898. 77, fig. 60; pl. 6, fig. 10.

Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

Manticoceras apprimatum Clarke

3731 $\frac{12301}{1}$ TYPE Manticoceras apprimatum Clarke. 16th annual report of the New York state geologist. 1898. p. 62, pl. 6, fig. 27.
Portage (Naples) beds Griswold, Genesee co. N. Y.
J. M. Clarke, donor

3732 $\frac{12301}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 28.
Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

3733 $\frac{12301}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 29.
Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

Manticoceras contractum Clarke

3734 $\frac{12302}{1}$ TYPE Manticoceras contractum Clarke. 16th annual report of the New York state geologist. 1898. p. 69, pl. 6, fig. 1.
Genesee shale (Styliola limestone) Middlesex N. Y.
J. M. Clarke, donor

3735 $\frac{12302}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 2.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras fasciculatum Clarke

3736 $\frac{12303}{1}$ TYPE Manticoceras fasciculatum Clarke. 16th annual report of the New York state geologist. 1898. p. 71, pl. 6, fig. 13, 14.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3737 $\frac{12303}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 18.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3738 $\frac{12303}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 21.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, do

3739 $\frac{12303}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 22.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3740 $\frac{12303}{6}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 72, fig. 45–48.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3741 $\frac{12303}{8}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 72, fig. 50.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3742 $\frac{12303}{7}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 51.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3743 $\frac{12303}{5}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 52.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

3744 $\frac{12303}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 73, fig. 53.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras nodifer Clarke

3745 $\frac{12304}{1}$ PLASTOTYPE Goniatites nodifer Clarke. United States geological survey bulletin 16. 1885. p. 21.
Manticoceras nodifer Clarke. 16th annual report of the New York state geologist. 1898. pl. 6, fig. 24, 26.
Genesee shale (Styliola limestone)
Genundewa, Canandaigua lake, N. Y.
J. M. Clarke, donor

Manticoceras oxy Clarke

46 $\frac{12305}{1}$ TYPE Manticoceras oxy Clarke. 16th annual report of the New York state geologist. 1898. p. 77, pl. 2, fig. 5, 6.
Portage (Naples) beds Lower falls, Portage N. Y.
J. M. Clarke, donor

47 $\frac{12305}{2}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 1.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

48 $\frac{12305}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 2, 3.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras pattersoni Hall (sp.)

49 $\frac{12306}{1}$ HYPOTYPE (type of G. sinuosus) Goniatites sinuosus Hall. Geology of New York; report on the 4th district. 1843. p. 243.
Goniatites (Clymenia?) nundaia Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 13.
Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 13.
Portage (Ithaca) beds Ithaca N. Y.
Geological survey collection

50 $\frac{12306}{2}$ HYPOTYPE (type of G. sinuosus) Goniatites (Clymenia?) nundaia Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 14.
Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 14.
Portage (Ithaca) beds Truxton, Cortland co. N. Y.

51 $\frac{12306}{3}$ HYPOTYPE (Type of G. sinuosus) Goniatites (Clymenia?) nundaia Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 70, fig. 15; pl. 74, fig. 11.
Goniatites sinuosus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 70, fig. 15; pl. 74, fig. 11.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

3752 $\frac{12306}{4}$ HYPOTYPE Goniatites patersoni Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 99.

Goniatites patersoni Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 72, fig. 5.

Goniatites patersoni Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 72, fig. 5.

Portage (Naples) beds Portage falls, Portageville N. Y. Geological survey collection

3753 $\frac{12306}{5}$ HYPOTYPE Goniatites sinuosus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 128, fig. 1.

Portage (Ithaca) beds University quarry, Ithaca N. Y. S. G. Williams collection

3754 $\frac{12306}{6}$ HYPOTYPE Goniatites sinuosus Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 128, fig. 2.

Portage (Ithaca) beds University quarry, Ithaca N. Y. S. G. Williams collection

3755 $\frac{12306}{7}$ HYPOTYPE Manticoceras pattersoni Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 1.

Portage (Naples) beds Honeoye lake, N. Y. J. M. Clarke, donor

3756 $\frac{12306}{8}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 2.

Portage (Naples) beds Honeoye lake, N. Y. J. M. Clarke, donor

3757 $\frac{12306}{9}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 3.

Portage (Naples) beds Honeoye lake, N. Y. J. M. Clarke, donor

3758 $\frac{12306}{10}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 4.

Portage (Naples) beds Honeoye lake, N. Y. J. M. Clarke, donor

3759 $\frac{12306}{11}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 6.

Portage (Naples) beds Honeoye lake, N. Y. J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 7.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl 1, fig. 9.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 10; pl. 4, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 11.
Portage (Naples) beds Parrish gully, Naples N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 12.
Portage (Naples) beds Parrish gully, N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 1.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 3.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 2, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 3, fig. 4.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12306 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 14.
Portage (Naples) beds Rock Stream, Yates co. N. Y.
J. M. Clarke, donor

3770 $\frac{12306}{22}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 15.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3771 $\frac{12306}{23}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 17.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3772 $\frac{12306}{24}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 18.
Chemung beds Elmira N. Y.
J. M. Clarke, donor

3773 $\frac{12306}{25}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 46, fig. 1.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

3774 $\frac{12306}{26}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 3.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3775 $\frac{12306}{27}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 4, 5.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3776 $\frac{12306}{28}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 6.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3777 $\frac{12306}{29}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 7.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3778 $\frac{12306}{30}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 8.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

3779 $\frac{12306}{31}$ HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 49, fig. 10.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306/32 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 50, fig. 11.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306/133 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 51, fig. 13, 14.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12306/34 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 55, fig. 25.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras pattersoni *var.* **styliophilum** Clarke

12307/1 TYPE Manticoceras pattersoni var. styliophilum Clarke. 16th annual report of the New York state geologist. 1898. p. 75, fig. 55; pl. 6, fig. 30.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Manticoceras rhynchostoma Clarke

12308/1 PLASTOTYPE[1] Manticoceras rhynchostoma Clarke. 16th annual report of the New York state geologist. 1898. p. 65, pl. 4, fig. 6.
Portage (Naples) beds Big Sister creek, Erie co. N. Y.
J. M. Clarke, donor

12308/2 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 7.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

12308/3 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 8.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

12308/4 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 9.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

12308/5 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. p. 67, fig. 37; pl. 4, fig. 10.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

[1] Type unavoidably destroyed in the process of taking the plastotype.

3789 $\frac{12308}{6}$ PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 11.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3790 $\frac{12308}{7}$ PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 12.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3791 $\frac{12308}{8}$ PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 13.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, donor

3792 $\frac{12308}{9}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 5, fig. 1.
Portage (Naples) beds Big Sister creek, N. Y.
D. D. Luther, coll. 1897

3793 $\frac{12308}{10}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 65, fig. 30.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

3794 $\frac{12308}{11}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 67, fig. 41.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

3795 $\frac{12308}{12}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 68, fig. 42.
Portage (Naples) beds Big Sister creek, N. Y.
J. M. Clarke, coll. 1898

3796 $\frac{12308}{13}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 68, fig. 43.
Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

Manticoceras simulator Hall (sp.)

3797 $\frac{12309}{1}$ TYPE Goniatites simulator Hall. Descriptions of new species of Goniatitidae. 1874. p. 2.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 1, 2; pl. 74, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 1, 2; pl. 74, fig. 8.

[1] Unavoidably destroyed in the process of taking the plastotype.

Manticoceras simulator Clarke. 16th annual report of the New York state geologist. 1898. pl. 1, fig. 14.

Portage (Ithaca) beds — Near Ithaca N. Y.

Manticoceras sororium Clarke

12310/1 PLASTOTYPE[1] Manticoceras sororium Clarke. 16th annual report of the New York state geologist. 1898. p. 75, pl. 4, fig. 1.

Portage (Naples) beds — Big Sister creek, Erie co. N. Y. J. M. Clarke, donor

12310/2 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 2, 3.

Portage (Naples) beds — Big Sister creek, N. Y. J. M. Clarke, donor

12310/3 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 4.

Portage (Naples) beds — Big Sister creek, N. Y. J. M. Clarke, donor

12310/4 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 4, fig. 5.

Portage (Naples) beds — Big Sister creek, N. Y. J. M. Clarke, donor

12310/5 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. p. 76, fig. 56.

Portage (Naples) beds — Big Sister creek, N. Y. J. M. Clarke, donor

12310/6 PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. p. 76, fig. 58.

Portage (Naples) beds — Angola, Erie co. N. Y. J. M. Clarke, donor

Manticoceras tardum Clarke

12311/1 PLASTOTYPE[1] Manticoceras tardum Clarke. 16th annual report of the New York state geologist. 1898. p. 63, pl. 6, fig. 31.

Portage (Naples) beds — Briggs gully, Honeoye lake, N. Y. J. M. Clarke, donor

Manticoceras vagans Clarke

12312/1 TYPE Manticoceras vagans Clarke. 16th annual report of the New York state geologist. 1898. p. 78; 79, fig. 62; pl. 6, fig. 11, 12.

Portage (Naples) beds — Naples N. Y. J. M. Clarke, donor

[1] Type unavoidably destroyed in the process of taking the plastotype.

NAUTILUS Breynius

Nautilus? *see* Nautilus (Nephriticeras) subliratus

Nautilus acraeus *see* Nautilus (Nephriticeras) acraeus

Nautilus (Nephriticeras) acraeus Hall

3806 $\frac{12320}{1}$ TYPE Nautilus acraeus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 417, pl. 109, fig. 3-5.

Hamilton beds Near Bridgewater, Oneida co. N. Y.
F. B. Meek, R. P. Whitfield, and C. Van Deloo, coll. 1857

Nautilus barrandei *see* Nautilus (Nephriticeras) magister

Nautilus bucinum *see* Nautilus (Nephriticeras) bucinum

Nautilus (Nephriticeras) bucinum Hall

3807 $\frac{12321}{1}$ TYPE Nautilus bucinum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 1-3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 412, pl. 60, fig. 1-3.

Marcellus shale (Agoniatite limestone)
Manlius, Onondaga co. N. Y.
J. Gebhard purchase

3808 $\frac{12321}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 4; pl. 106, fig. 6.

Hamilton beds Solsville, Madison co. N. Y.
Geological survey collection

3809 $\frac{12321}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 4, 5.

Hamilton beds Cazenovia, Madison co. N. Y.
Lincklaen collection

3810 $\frac{12321}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 7.

Hamilton beds Near Cazenovia, N. Y.

3811 $\frac{12321}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 3.

Hamilton beds Pratt's falls, Onondaga co. N. Y.

3812 $\frac{12321}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 1.

Hamilton beds West shore of Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

3813 $\frac{12321}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 2.

Hamilton beds Cazenovia, Madison co. N. Y.
James Hall, coll.

3814 $\frac{12321}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 6.

Hamilton beds Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

Nautilus hyatti *see* Nautilus (Nephriticeras) hyatti

Nautilus (Nephriticeras) hyatti Hall

3815 $\frac{12322}{1}$ PLASTOTYPE Nautilus hyatti Hall. 5th annual report of the New York state geologist. 1886. pl. (126) 11, fig. 1.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 37, pl. 126, fig. 1.

Hamilton beds Cumberland Md.

Nautilus (Discites) inopinatus Hall

3816 $\frac{12323}{1}$ TYPE Nautilus (Discites) inopinatus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 426, pl. 110, fig. 1, 2.

Onondaga limestone Kelley's island, Sandusky O.
S. G. Williams collection

Nautilus (Nephriticeras) juvenis (Hall) Hyatt

3817 $\frac{12324}{1}$ TYPE Gyroceras liratum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 57, fig. 5, 6.

Nautilus liratus var. juvenis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 411, pl. 56, fig. 5, 6.

Hamilton beds Cazenovia, Madison co. N. Y.

Nautilus liratum *see* Nautilus (Nephriticeras) liratus

Nautilus (Nephriticeras) liratus Hall

3818 $\frac{12325}{1}$ HYPOTYPE Gyroceras liratum Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 104.

Gyroceras liratum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 1.

Nautilus liratus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 407, pl. 57, fig. 3.

Hamilton beds Sherburne, Chenango co. N. Y.

3819 $\frac{12}{2}\frac{3}{2}\frac{25}{2}$ TYPE: PLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 8.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 8.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

3820 $\frac{12}{3}\frac{3}{3}\frac{25}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 60, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 60, fig. 9.

Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Nautilus liratus var. juvenis *see* Nautilus (Nephriticeras) juvenis

Nautilus magister *see* Nautilus (Nephriticeras) magister

Nautilus (Nephriticeras) magister Hall

3821 $\frac{12}{1}\frac{3}{1}\frac{25}{1}$ TYPE Nautilus barrandei Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 64A, fig. 2.

Nautilus magister Hall. Paleontology of New York. 1879. v 5, pt 2, p. 422, pl. 105, fig. 1

Hamilton beds Leonardsville, Madison co. N. Y.
F. B. Meek, R. P. Whitfield, and C. Van Deloo, coll. 1857

3822 $\frac{12}{2}\frac{3}{2}\frac{25}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 1.

Hamilton beds Hamburg, Erie co. N. Y.
C. A. White. coll. 1860

3823 $\frac{12}{3}\frac{3}{3}\frac{25}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 6, 7.

Hamilton beds Hamburg N. Y.
C. Van Deloo, coll. 1864

3824 $\frac{12}{4}\frac{3}{4}\frac{25}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 107, fig. 8.

Hamilton beds Hamburg N. Y.
J. W. Hall and C. Van Deloo, coll. 1865

3825 $\frac{12}{5}\frac{3}{5}\frac{25}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 63, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 108, fig. 1, 2.

Hamilton beds Hamburg N. Y.
C. A. White coll. 1860

Nautilus (Discites) marcellensis Vanuxem (sp.)

12327/1 TYPE Goniatites marcellensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 146, fig. 2.

Nautilus (Discites) marcellensis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 10.

Marcellus shale (Agoniatite limestone) Manlius N. Y. Geological survey collection

12327/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 65, fig. 1.

Marcellus shale (Agoniatite limestone) Schoharie N. Y. J. Gebhard purchase

12327/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 109, fig. 9, 12.

Marcellus shale (Agoniatite limestone) Schoharie N. Y. J. Gebhard purchase

Nautilus maximus *see* Nautilus (Nephriticeras) maximus

Nautilus (Nephriticeras) maximus (Conrad) Hall

12328/1 TYPE Cyrtoceras maximum Conrad. Geological survey of New York; paleontological department; 1st annual report. 1838. p. 117.

Nautilus maximus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 64, fig. 1.

Nautilus maximus Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 64, fig. 1.

Hamilton beds Solsville, Madison co. N. Y. J. Gebhard purchase

Nautilus oceanus Hall

12329/1 TYPE Nautilus oceanus Hall. 11th annual report of the Indiana state geologist. 1882. p. 325, type of description (not figured).

Niagaran Flat Rock creek, Shelby co. Ind. C. D. Walcott, coll. 1878

Nautilus oriens *see* Nautilus (Nephriticeras) oriens

Nautilus (Nephriticeras) oriens Hall

12330/1 TYPE Nautilus oriens Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 61, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 420, pl. 61, fig. 1.

Hamilton beds Richmondville, Schoharie co. N. Y.
J. Gebhard purchase

3832 $12\frac{3}{2}10$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 105, fig. 2.

Hamilton beds Richmondville N. Y.
J. Gebhard purchase

3833 $12\frac{3}{3}10$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 106, fig. 8; supplement (=v. 7). 1888. pl. 126, fig. 2.

Hamilton beds Richmondville N. Y.
J. Gebhard purchase

Nautilus subliratus *see* Nautilus (Nephriticeras) subliratus

Nautilus (Nephriticeras) subliratus Hall

3834 $12\frac{3}{1}31$ TYPE Gyroceras subliratum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 2.

Nautilus subliratus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 409, pl. 57, fig. 4.

Hamilton beds Earlville, Madison co. N. Y.
Geological survey collection

3835 $12\frac{3}{2}31$ TYPE? Nautilus? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 5.

Nautilus subliratus? Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 57, fig. 5.

Hamilton beds Basin gulf, Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

3836 $12\frac{3}{3}31$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 58, fig. 3, 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 57, fig. 6, 7.

Hamilton beds Earlville, N. Y.
Geological survey collection

Nephriticeras juvenis *see* Nautilus (Nephriticeras) juvenis

Oncoceras expansum *see* Phragmoceras? expansum

Ormoceras? gracile *see* Hormoceras? gracile

Ormoceras remotiseptum *see* Hormoceras remotiseptum

Ormoceras tenuifilum *see* Hormoceras tenuifilum

ORTHOCERAS Breynius

Orthoceras sp.

7 $\frac{12540}{1}$ TYPE (of protoconch) Orthoceras sp. Clarke. American geologist. 1893. 12: 114, fig. 1, 2.

Clarke. 16th annual report of the New York state geologist. 1898. pl. 9, fig. 23–25.

Genesee shale (Styliola limestone)

Canandaigua lake, N. Y.
J. M. Clarke, donor

Orthoceras sp. indet. Hail

8 $\frac{12341}{1}$ HYPOTYPE Orthoceras sp. indet. Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 304, pl. 83, fig. 13.

Hamilton beds — Bosanquet, Ontario, Can.
J. De Cew, coll. 1865

Orthoceras aegea *see* Orthoceras (Spyroceras) aegea

Orthoceras (Spyroceras) aegea Hall

9 $\frac{12342}{1}$ TYPE Orthoceras aegea Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 52.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 7, 8.

Hamilton beds — Pratt's falls, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

0 $\frac{12342}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 9.

Hamilton beds — Pratt's falls, N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

1 $\frac{12342}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 10.

Hamilton beds — Geneseo, Livingston co. N. Y.
C. Van Deloo, coll. 1865

2 $\frac{12342}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 11.

Hamilton beds — Geneseo N. Y.
C. Van Deloo, coll. 1865

Orthoceras amycus *see* Orthoceras (Cycloceras) amycus

Orthoceras (Cycloceras) amycus Hall

3843 $\frac{12342}{1}$ TYPE Orthoceras amycus Hall. 11th annual report of the Indiana state geologist. 1882. p. 324, pl. 33, fig. 3, 4.

Niagaran — Flat Rock creek, Shelby co. Ind.
C. D. Walcott, coll. 1878

Orthoceras anguis Hall

3844 $\frac{12344}{1}$ TYPE Orthoceras anguis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 312, pl. 89, fig. 9.

Portage (Ithaca) beds
Cascadilla creek, upper fall, Ithaca N. Y.
S. G. Williams collection

Orthoceras aptum Hall

3845 $\frac{12345}{1}$ TYPE Orthoceras typum (Saemann) Hall (in part). Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 38, fig. 8.

Orthoceras aptum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 282, pl. 38, fig. 8.

Marcellus shale (Agoniatite limestone)
Schoharie N. Y.
J. Gebhard purchase

Orthoceras atreus Hall

3846 $\frac{12346}{1}$ TYPE Orthoceras atreus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 305, pl. 88, fig. 1.

Portage (Naples) beds — Portageville, Wyoming co. N.Y.

Orthoceras aulax Hall

3847 $\frac{12347}{1}$ TYPE Orthoceras aulax Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 293, pl. 84, fig. 18.

Hamilton beds — Hamburg, Erie co. N.Y.
J. W. Hall and C. Van Deloo, coll. 1865

Orthoceras baculum *see* Orthoceras stylus

Orthoceras bebryx Hall

3848 $\frac{12348}{1}$ TYPE Orthoceras typum? (Saemann) Hall (in part). Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 38. fig. 10.

Orthoceras bebryx Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 275, pl. 38, fig. 10.

Hamilton beds — Cazenovia N. Y.
L. Lincklaen, donor

12348/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 39, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 39, fig. 2.
Hamilton beds — Cazenovia N. Y.
L. Lincklaen, donor

12348/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 14.
Hamilton beds — Skaneateles lake, N. Y.
G. B. Simpson, coll. 1863

12348/4 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 11.
Hamilton beds — York, Livingston co. N. Y.
C. Van Deloo, coll. 1865

Orthoceras bebryx Hall *var.* **cayuga** Hall

12349/1 TYPE Orthoceras bebryx var. cayuga Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 276, pl. 86, fig. 3.
Portage (Ithaca) beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

12349/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 86, fig. 4.
Portage (Ithaca) beds — Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

12349/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 86, fig. 5.
Portage (Ithaca) beds — Cortland, Cortland co. N. Y.
Pickett collection

12349/4 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 91, fig. 1.
Portage (Ithaca) beds — Cascadilla ravine quarry, Ithaca N. Y.
S. G. Williams collection

12349/5 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 91, fig. 2.
Portage (Ithaca) beds — University quarry, Ithaca N. Y.
S. G. Williams collection

12349/6 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 91, fig. 3.
Portage (Ithaca) beds — Earl's quarry, Ithaca N. Y.
S. G. Williams collection

3858 $\frac{12342}{4}$ TYPE Hall Paleontology of New York. 1879. v. 5, pt 2, pl. 91, fig. 4, 5.
Portage (Ithaca) beds Earl's quarry, Ithaca N. Y.
S. G. Williams collection

3859 $\frac{12342}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 2.
Portage (Ithaca) beds University quarry, Ithaca, N. Y.
S. G. Williams collection

3860 $\frac{12342}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 3.
Portage (Ithaca) beds University quarry, Ithaca N. Y.
S. G. Williams collection

3861 $\frac{12342}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 92, fig. 4, 5.
Portage (Ithaca) beds University quarry, Ithaca N. Y.
S. G. Williams collection

Orthoceras caelamen *see* Orthoceras (Spyroceras) caelamen

Orthoceras (Spyroceras) caelamen Hall

3862 $\frac{12351}{1}$ TYPE Orthoceras crotalum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 10 (lower part).
Orthoceras caelamen Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 298, pl. 42, fig. 10 (lower part); pl. 82, fig. 16.
Hamilton beds Vincent [Muttonville], Ontario co. N.Y.
C. A. White and C. Van Deloo, coll. 1860

3863 $\frac{12351}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 22.
Hamilton beds Moravia N. Y.
S. G. Williams collection

3864 $\frac{12351}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 23.
Hamilton beds Moravia N. Y.
S. G. Williams collection

Orthoceras carnosum Hall

3865 $\frac{12352}{1}$ TYPE Orthoceras carnosum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 258, pl. 35, fig. 11.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras cingulum Hall

12353/1 TYPE Orthoceras cingulum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 240, pl. 76, fig. 2.
Schoharie grit — Schoharie N. Y.

12353/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 3.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras clavatum *see* Orthoceras desideratum

Orthoceras collatum Hall

12354/1 TYPE Orthoceras collatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 252, pl. 80, fig. 1.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

12354/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 3, 4.
Schoharie grit — Clarksville, Albany co. N. Y.

Orthoceras consortale Hall

12355/1 TYPE Orthoceras consortale Hall. 5th annual report of the New York state geologist. 1886. pl. (118) 2, fig. 3–5.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 29, pl. 118, fig. 3–5.
Chemung (?) beds — Panama, Chautauqua co. N. Y.
James Hall, coll. 1870

Orthoceras constrictum Vanuxem

12356/1 HYPOTYPE Orthoceras constrictum Vanuxem. Geology of New York; report on the 3d district. 1842. p. 152.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 11.
Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

12356/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 13.
Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

Orthoceras coralliferum Hall

3873 $\frac{12\frac{3}{4}57}{1}$ TYPE Orthoceras coralliferum Hall. Paleontology of New York. 1847. 1:312, pl. 85, fig. 3.

Utica shale — Turin, Lewis co. N. Y.
Geological survey collection

3874 $\frac{12\frac{3}{4}57}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 86, fig. 1c.

Lorraine beds — Lewis county, N. Y.
Geological survey collection

Orthoceras creon *see* Orthoceras (Spyroceras) creon

Orthoceras (Spyroceras) creon Hall

3875 $\frac{12\frac{3}{4}58}{1}$ TYPE Orthoceras creon Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 260, pl. 79, fig. 14, 15.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras crotalum *see* Orthoceras (Spyroceras) caelamen

Orthoceras crotalum *see* Orthoceras (Spyroceras) crotalum

Orthoceras (Spyroceras) crotalum Hall

3876 $\frac{12\frac{3}{4}59}{1}$ HYPOTYPE Orthoceras crotalum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 50.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 2.

Hamilton beds — Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

3877 $\frac{12\frac{3}{4}59}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 5, 11.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 5, 11.

Hamilton beds — Hamilton, Madison co. N. Y.

3878 $\frac{12\frac{3}{4}59}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 6.

Hamilton beds — Pratt's falls N. Y.
G. B. Simpson, coll. 1871

13559/4 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 7.

Hamilton beds Otisco lake, Onondaga co. N. Y.
J. W. Hall and G. B. Simpson, coll. 1872

13559/5 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 42, fig. 12.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 42, fig. 12.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

13559/6 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 1 (2 specimens).

Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1863 and 1871

13559/7 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 2.

Hamilton beds Delphi, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

13559/8 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 3, 4.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

13559/9 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 5; pl. 113, fig. 13, 13a.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1876

13559/10 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 6.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras demus Hall

13560/1 TYPE Orthoceras demus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 311, pl. 90, fig. 1.

Chemung beds Belmont, Allegany co. N. Y.

13560/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 90, fig. 4.

Portage (Ithaca) beds Cascadilla quarry, Ithaca N. Y.
S. G. Williams collection

3888 $\frac{12360}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 90, fig. 5.

Chemung beds Ithaca N. Y.

J. W. Hall and G. B. Simpson, coll. 1870

Orthoceras desideratum Hall

3889 $\frac{12361}{1}$ TYPE Orthoceras clavatum Hall. Paleontology of New York. 1859. 3:345, pl. 71, fig. 4.

Orthoceras desideratum Hall in Miller's Catalogue of North American geology and paleontology. 1889. p. 447.

Coeymans limestone Schoharie N. Y.

J. Gebhard purchase

On specimen with type of Beyrichia parasitica Hall. Paleontology of New York. 1859. 3:376 (not figured). Jones. Quarterly journal geological society. 1890. 46:17, fig. 1.

Orthoceras duramen Hall

3890 $\frac{12362}{1}$ TYPE Orthoceras duramen Hall. 5th annual report of the New York state geologist. 1886. pl. (117) 1, fig. 1.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 25, pl. 117, fig. 1.

Schoharie grit Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

Orthoceras emaceratum Hall

3891 $\frac{12363}{1}$ TYPE Orthoceras emaceratum Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 170, pl. 8, fig. 7.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 39, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 39, fig. 4.

Hamilton beds Hamburg, Erie co. N. Y.

3892 $\frac{12363}{2}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 16.

Hamilton beds Jaycox run, Livingston co. N. Y.

C. Van Deloo, coll. 1865

Orthoceras eriense Hall

3893 $\frac{12364}{1}$ TYPE Orthoceras robustum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 40, fig. 4.

Orthoceras eriense Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 274, pl. 40, fig. 4.

Hamilton beds Otisco, Onondaga co. N. Y.

12364/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 87, fig. 1, 2.

Hamilton beds Lake Erie shore, N. Y.

Orthoceras exile Hall

12365/1 HYPOTYPE Orthoceras exile Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 50.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 8, fig. 5.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 39, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 39, fig. 3.

Hamilton beds Cazenovia N. Y.
L. Lincklaen, donor

12365/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 14.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

12365/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 15.

Hamilton beds Norton's landing, Cayuga lake, N. Y.
J. W. Hall, coll. 1866

Orthoceras expositum Hall

12366/1 TYPE Orthoceras expositum Hall. 5th annual report of the New York state geologist. 1886. pl. (118) 2, fig. 2.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 29, pl. 118, fig. 2.

Chemung beds Austinsville, Bradford co. Pa.
A. Sherwood, coll. 1873

Orthoceras fenestrulatum *see* Orthoceras (Kionoceras) fenestrulatum

Orthoceras (Kionoceras) fenestrulatum Clarke

12367/1 TYPE Orthoceras fenestrulatum Clarke. 13th annual report of the New York state geologist. 1894. 1 : 168, pl. 2, fig. 10, 11.

Marcellus shale (Stafford limestone)
Stafford, Genesee co. N. Y.
J. M. Clarke and J. Van Deloo, coll. 1888

Orthoceras fluctum Hall

3900 $\frac{12368}{1}$ TYPE Orthoceras fluctum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 239, pl. 76, fig. 4, 7.
Schoharie grit Clarksville, Albany co. N. Y.

3901 $\frac{12368}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 5, 6 (upper half of specimen only; lower half is O. luxum).
Schoharie grit Clarksville N. Y.

Orthoceras fulgidum Hall

3902 $\frac{12369}{1}$ TYPE Orthoceras fulgidum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 310, pl. 90, fig. 2.
Portage (Ithaca) beds Cascadilla creek, Ithaca N. Y.
S. G. Williams collection

Orthoceras fusiforme Hall

3903 $\frac{12370}{1}$ TYPE Orthoceras fusiforme Hall. Paleontology of New York. 1847. 1:60, pl. 20, fig. 1.
Black River limestone Watertown N. Y.

Orthoceras fustis Hall

3904 $\frac{12371}{1}$ TYPE Orthoceras fustis Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 281, pl. 83, fig. 11; pl. 113, fig. 16, 17.
Marcellus shale (Agoniatite limestone) Schoharie N. Y.
J. Gebhard purchase

Orthoceras (Spyroceras) geneva Hall

3905 $\frac{12372}{1}$ TYPE Orthoceras geneva Clarke. 13th annual report of the New York state geologist. 1894. 1:168, pl. 2, fig. 5–7.
Onondaga limestone Geneva N. Y.
D. F. Lincoln, donor

Orthoceras helderbergiae Hall

3906 $\frac{12373}{1}$ TYPE Orthoceras helderbergiae Hall. Paleontology of New York. 1859. 3:346, pl. 72, fig. 2.
New Scotland beds Schoharie county, N. Y.
J. Gebhard purchase

Orthoceras incarceratum *see* Orthoceras (Spyroceras) incarceratum

Orthoceras (Spyroceras) incarceratum Clarke

7 $\frac{12373a}{1}$ TYPE Orthoceras incarceratum Clarke. 13th annual report of the New York state geologist. 1894. 1 : 170, pl. 2, fig. 3, 4.
Marcellus shale Livonia salt shaft, Livonia, N. Y.
D. D. Luther, coll. 1891

Orthoceras inoptatum *see* Orthoceras (Kionoceras) inoptatum

Orthoceras (Kionoceras) inoptatum Hall

8 $\frac{12374}{1}$ TYPE Orthoceras inoptatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 267, pl 112, fig. 9, 10.
Onondaga limestone Clarence Hollow, Erie co. N. Y.

Orthoceras laqueatum *see* Orthoceras (Kionoceras) laqueatum

Orthoceras (Kionoceras) laqueatum Hall

9 $\frac{12375}{1}$ TYPE Orthoceras laqueatum Hall. Paleontology of New York. 1847. 1 : 13, pl. 3, fig. 12.
Beekmantown limestone (loose in drift)
Geological survey collection

Orthoceras leander Hall

0 $\frac{12376}{1}$ TYPE Orthoceras leander Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 309, pl. 90, fig. 6.
Ithaca beds Ithaca N Y.
J. W. Hall and C. Van Deloo, coll. 1866

1 $\frac{12376}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 90, fig. 7.
Ithaca beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Orthoceras lima *see* Orthoceras (Spyroceras) lima

Orthoceras (Spyroceras) lima Hall

2 $\frac{12377}{1}$ TYPE Orthoceras lima Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 303, pl. 113, fig. 24, 25.
Hamilton beds Cazenovia, Madison co. N. Y.
S. G. Williams collection

Orthoceras lineolatum Hall (sp.)

3913 $\frac{12378}{1}$ TYPE Endoceras proteiforme var. lineolatum Hall. Paleontology of New York. 1847. 1: 211, pl 45, fig. 4c, 4d.
Trenton limestone Middleville, Herkimer co. N. Y.

Orthoceras linteum Hall

3914 $\frac{12378}{1}$ TYPE Orthoceras linteum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 277, pl. 87, fig. 3, 4.
Hamilton beds. Leonardsville, Madison co. N. Y.
F. B. Meek, R P. Whitfield and C. Van Deloo, coll. 1857

Orthoceras luxum Hall

3915 $\frac{12380}{1}$ HYPOTYPE Orthoceras pelops Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3916 $\frac{12380}{2}$ TYPE Orthoceras pelops Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 4.
Orthoceras luxum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 244, pl. 35, fig. 4.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3917 $\frac{12380}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 1 (lower part).
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 5.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3918 $\frac{12380}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3919 $\frac{12380}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 7.
Schoharie grit Clarksville, Albany co. N. Y.

3920 $\frac{12380}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 1.
Schoharie grit Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

3921 $\frac{12380}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 76, fig. 5 (lower part; upper part is O. fluctum).
Schoharie grit Clarksville N. Y.

3922 $\frac{12380}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3923 $\frac{12380}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 2.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3924 $\frac{12380}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 3.
Schoharie grit Clarksville N. Y.
C. Van Deloo, coll. 1862

3925 $\frac{12380}{11}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 4.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3926 $\frac{12380}{12}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 5.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3927 $\frac{12380}{13}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3928 $\frac{12380}{14}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 7.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3929 $\frac{12380}{15}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 77, fig. 8; pl. 78B, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3930 $\frac{12380}{16}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78, fig. 5, 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3931 $\frac{12380}{17}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78, fig. 7.
Schoharie grit Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

3932 $\frac{12380}{18}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 13.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3933 $\frac{12380}{19}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 12.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3934 $\frac{12380}{20}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 13.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3935 $\frac{12380}{21}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 14.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras marcellense *see* Orthoceras (Kionoceras) marcellense

Orthoceras (Kionoceras) marcellense (Vanuxem) Hall

3936 $\frac{12381}{1}$ TYPE Marcellus orthocera Vanuxem. Geology of New York; report on the 3d district. 1842. p. 147.
Orthoceras marcellense Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 278, pl. 38, fig. 7.
Marcellus shale (Agoniatite limestone)
Falls of Oneida creek, N. Y.

3937 $\frac{12381}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 1.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.

3938 $\frac{12381}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 3.
Marcellus shale (Agoniatite limestone) Manlius N. Y.

3939 $\frac{12381}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 6.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
H. H. Smith, coll. 1873

12381/5 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 8.
Marcellus shale (Agoniatite limestone) Manlius N. Y.
H. H. Smith, coll. 1873

12381/6 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 9.
Marcellus shale (Agoniatite limestone)
Marcellus, Onondaga co. N. Y.
C. A. White, coll. 1860

12381/7 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 83, fig. 10.
Marcellus shale (Agoniatite limestone)
Near Manlius N. Y.
H. H. Smith, coll. 1873

Orthoceras masculum Hall

12382/1 TYPE Orthoceras masculum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 238, pl. 78B, fig. 1.
Schoharie grit Schoharie N. Y.

12382/2 TYPES (of measurements) 2 SPECIMENS Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 238.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras medium Hall

12383/1 TYPE Orthoceras medium Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 254, pl. 79, fig. 11, 12.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras medullare *see* Orthoceras (Kionoceras) medullare

Orthoceras (Kionoceras) medullare Hall

12384/1 HYPOTYPE Orthoceras medullare Hall. Geological survey of Wisconsin; report of progress. 1860.
Hall. 11th annual report of the Indiana state geologist. 1882. p. 323 (hypotype of description).
Niagaran Flat Rock creek, Shelby co. Ind.
C. D. Walcott, coll. 1878

Orthoceras multicameratum (Emmons) Hall

12385/1 TYPE Orthoceratites multicameratus Emmons Geology of New York; report on the 2d district. 1842 p. 382.

Orthoceras multicameratum Hall. Paleontology of New York. 1847. v. 1, pl. 11, fig. 1c.

Lowville limestone — Watertown N. Y.
Geological survey collection

Orthoceras multicinctum *see* Orthoceras (Cycloceras) multicinctum

Orthoceras (Cycloceras) multicinctum Hall

3948 $\frac{12386}{1}$ TYPE Orthoceras multicinctum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 48.

Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 3.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 1.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3949 $\frac{12386}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. pl. 7, fig. 2.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 2.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3950 $\frac{12386}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras (Spyroceras) nuntioides Clarke

3951 $\frac{12387}{1}$ TYPE: PLASTOTYPE Orthoceras nuntioides Clarke. 13th annual report of the New York state geologist. 1894. 1: 170, pl. 2, fig. 8.

Marcellus shale — Chapinville, Ontario co. N. Y.
J. M. Clarke, coll.

Orthoceras nuntium *see* Orthoceras (Spyroceras) nuntium

Orthoceras (Spyroceras) nuntium Hall

52 $\frac{12388}{1}$ HYPOTYPE Orthoceras nuntium Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 51.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 6, 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 6, 7.

Hamilton beds Hamburg N. Y.

53 $\frac{12388}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 10.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

54 $\frac{12388}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 43, fig. 14.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 43, fig. 14.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

55 $\frac{12388}{4}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 14.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
G. B. Simpson, coll. 1871

56 $\frac{12388}{5}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 15.

Hamilton beds Pratt's falls N. Y.
G. B. Simpson, coll. 1871

Orthoceras oedipus *see* Orthoceras (Spyroceras) oedipus

Orthoceras (Spyroceras) oedipus Hall

57 $\frac{12389}{1}$ TYPE Orthoceras oedipus Hall. Paleontology of New York. 1879 v. 5, pt 2, p. 294, pl. 37, fig. 6.

Hamilton beds Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

58 $\frac{12389}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 82, fig. 17.

Hamilton beds Jaycox run, Livingston co. N. Y.
C. Van Deloo, coll. 1865

3959 $\frac{12389}{3}$ HYPOPLASTOTYPE[1] Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 2, fig. 12.
Hamilton beds Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

Orthoceras oppletum Hall

3960 $\frac{12390}{1}$ TYPE Orthoceras oppletum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 248, pl. 81, fig. 9–11.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3961 $\frac{12390}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 12.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3962 $\frac{12390}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 11.
Schoharie grit The Helderberg, Albany co. N. Y.
J. Gebhard purchase

Orthoceras pacator Hall

3963 $\frac{12391}{1}$ TYPE Orthoceras pacator Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 307, pl. 89, fig. 1.
Portage (Naples) beds
Mount Morris, Livingston co. N. Y.

3964 $\frac{12391}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 3.
Portage (Naples) beds Mount Morris N. Y.

3965 $\frac{12391}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 4.
Portage (Naples) beds Mount Morris N. Y.

3966 $\frac{12391}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 5.
Portage (Ithaca) beds Ithaca N. Y.
C. Van Deloo, coll. 187?

3967 $\frac{12391}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 89, fig. 6.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 187?

Orthoceras palmatum Hall

3968 $\frac{12392}{1}$ TYPE Orthoceras palmatum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 312, pl. 90, fig. 9, 10.
Chemung beds Southwestern New York

[1] Type unavoidably destroyed in process of taking the plastotype.

Orthoceras pauciseptum Hall

9 $\frac{12393}{1}$ TYPE Orthoceras pauciseptum Hall. Paleontology of New York. 1859. 3:346, pl. 72, fig. 5a, 5b.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

Orthoceras pelops *see* Orthoceras luxum

Orthoceras pelops *see* Orthoceras (Geisonoceras) pelops

Orthoceras pelops *see* Orthoceras tantalus

Orthoceras (Geisonoceras) pelops Hall

0 $\frac{12394}{1}$ TYPE Orthoceras pelops Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 45.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

1 $\frac{12394}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 2, 2a, 3.
Schoharie grit The Helderberg, Albany co. N. Y.

2 $\frac{12394}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 1–3.
Schoharie grit Clarksville N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1861

3 $\frac{12394}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 4.
Schoharie grit The Helderberg, N. Y.

4 $\frac{12394}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 5.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

5 $\frac{12394}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 6.
Schoharie grit The Helderberg, N. Y.
J. Gebhard purchase

6 $\frac{12394}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 37, fig. 4.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

3977 $\frac{12}{8}\frac{3}{9}\frac{9}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78B, fig. 2.
Schoharie grit Knox N. Y.
C. Van Deloo, coll. 1862

Orthoceras pertextum *see* Orthoceras (Spyroceras) pertextum

Orthoceras (Spyroceras) pertextum Hall

3978 $\frac{12}{1}\frac{3}{9}\frac{9}{5}$ TYPE Orthoceras pertextum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 314, pl. 90, fig. 16, 17.
Portage (Ithaca) beds Cornell-Fisk quarry, Ithaca N. Y.
S. G. Williams collection

Orthoceras pervicax Hall

3979 $\frac{12}{1}\frac{3}{9}\frac{9}{6}$ TYPE Orthoceras pervicax Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 257, pl. 79, fig. 9, 10.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras pravum Hall

3980 $\frac{12}{1}\frac{3}{9}\frac{9}{7}$ TYPE Orthoceras tetricum Hall. Illustrations of Devonian fossils 1876. Cephalopoda, pl. 36, fig. 2.
Orthoceras pravum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 255, pl. 35, fig. 14; pl. 36, fig. 1.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3981 $\frac{12}{2}\frac{3}{9}\frac{9}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 1.
Schoharie grit Clarksville N. Y.
C. Van Deloo, coll. 1862

3982 $\frac{12}{3}\frac{3}{9}\frac{9}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 1, pl. 81, fig. 2, 5; pl. 112, fig. 17.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3983 $\frac{12}{4}\frac{3}{9}\frac{9}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 3, 4; pl. 112, fig. 16.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3984 $\frac{12}{5}\frac{3}{9}\frac{9}{7}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 81, fig. 6.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

3985 $\frac{12397}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 15.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras primigenium (Vanuxem) Hall

3986 $\frac{12302}{1}$ TYPE Orthoceras primigenia Vanuxem. Geology of New York; report on the 3d district. 1842. p. 36.
Orthoceras primigenium Hall. Paleontology of New York. 1847. v. 1, pl. 3, fig. 11a.
Beekmantown limestone
Fort Plain, Montgomery co. N. Y.
Geological survey collection

Orthoceras procerum Hall

3987 $\frac{12302}{1}$ TYPE Othoceras procerum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 4.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 249, pl. 35, fig. 15.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3988 $\frac{12302}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 16; pl. 78A, fig. 1.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3989 $\frac{12302}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78A, fig. 2, 3.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3990 $\frac{12302}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78A, fig. 4, 5.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3991 $\frac{12302}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5 pt 2, pl. 78A, fig. 6, 7.
Schoharie grit — Clarksville N. Y.

3992 $\frac{12302}{6}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78A, fig. 8.
Schoharie grit — Clarksville N. Y.
J. Gebhard purchase

3993 12300 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl 79, fig. 5, 6.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

3994 12300 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 7, 8.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras profundum *see* Orthoceras (Spyroceras) profundum

Orthoceras (Spyroceras) profundum Hall

3995 12400 HYPOTYPE Orthoceras profundum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 48.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 37, fig. 5.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 37, fig. 8.
Onondaga limestone — Black Rock, Erie co. N. Y.

Orthoceras robustum *see* Orthoceras (Geisonoceras?) eriense

Orthoceras rude Hall

3996 12401 TYPE Orthoceras rudis Hall. Paleontology of New York. 1859. 3: 346, pl. 72, fig. 4a, 4b.
Helderbergian — Schoharie N. Y.
J. Gebhard purchase

Orthoceras rudens *see* Orthoceras (Cycloceras) rudens

Orthoceras (Cycloceras) rudens Hall

3997 12402 TYPE Orthoceras rudens Hall. 5th annual report of the New York state geologist. 1886. pl. (118), fig. 1.
Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (= v. 7), p. 28, pl. 118, fig. 1.
Hamilton beds? — Livingston county, N. Y.
Pickett collection

Orthoceras sceptrum Hall

12403 TYPE Orthoceras sceptrum Hall. 5th annual report of the New York state geologist. 1886. pl. (117)1, fig. 2.

Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), p. 26, pl. 117, fig. 2.

Onondaga limestone Cherry Valley, Otsego co. N. Y.
J. W. Hall, coll. 1877

Orthoceras scintilla Hall

12404 TYPE Orthoceras scintilla Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 293, pl. 84, fig. 19, 20.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 21; pl. 113, fig. 6.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig 7.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 8.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 9.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 10.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12404 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 11.

Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

4006 $\frac{12404}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 113, fig. 12.

Hamilton beds — Pratt's falls N. Y.

C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras simulator Hall

4007 $\frac{12405}{1}$ HYPOTYPE Orthoceras simulator Hall. 28th annual report of the New York state museum of natural history. 1876. p. 179.

Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 1, 2.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Orthoceras staffordensis *see* Orthoceras (Kionoceras) staffordense

Orthoceras (Kionoceras) staffordense Clarke

4008 $\frac{12406}{1}$ TYPE Orthoceras staffordensis Clarke. 13th annual report of the New York state geologist. 1894. 1: 169, pl. 2, fig. 1, 2.

Marcellus shale (Stafford limestone)

Stafford, Genesee co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

Orthoceras stylus Hall

4009 $\frac{12407}{1}$ TYPE Orthoceras baculum Hall Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 46.

Orthoceras baculum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 36, fig. 4.

Orthoceras stylus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 253, pl. 36, fig. 2; pl. 79, fig. 1.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

4010 $\frac{12407}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 36, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 36, fig. 3.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

12407/3 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 3.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Orthoceras subulatum Hall

12408/1 HYPOTYPE Orthoceras subulatum Hall. Geology of New York; report on the 4th district. 1843. p. 180.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 1.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/2 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 2.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/3 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 4.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/4 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 6, 10.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/5 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 7, 7+.
Hamilton beds Delphi, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/6 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 8.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/7 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 84, fig. 9.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

12408/8 HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 86, fig. 1, 2.
Hamilton beds Pratt's falls N. Y.
C. Van Deloo and H. H. Smith, coll. 1874

Orthoceras tantalus Hall

4020 $\frac{12}{1}\frac{40}{9}$ TYPE Orthoceras pelops Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 3 (upper part).

Orthoceras tantalus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 241, pl. 35, fig. 8, 9.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

4021 $\frac{12}{2}\frac{40}{9}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 35, fig. 1 (upper part).

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35, fig. 10.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

4022 $\frac{12}{3}\frac{40}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 7.

Schoharie grit — Clarksville, Albany co. N. Y.

4023 $\frac{12}{4}\frac{40}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 35A, fig. 10.

Schoharie grit — Clarksville N. Y.

Orthoceras telamon Hall

4024 $\frac{12}{1}\frac{10}{9}$ TYPE Orthoceras telamon Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 291, pl. 85, fig. 3, 4.

Hamilton beds — Menteth's point, Canandaigua lake, N. Y.

4025 $\frac{12}{2}\frac{10}{9}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 85, fig. 12.

Hamilton beds — Menteth's point, Canandaigua lake, N. Y.

R. P. Whitfield and J. W. Hall, coll. 1858

Orthoceras tenuiseptum Hall

4026 $\frac{12}{1}\frac{11}{1}$ TYPE Orthoceras tenuiseptum Hall. Paleontology of New York. 1847. 1 : 35, pl. 7, fig. 6.

Chazy limestone — Chazy, Clinton co. N. Y.

Geological survey collection

Orthoceras teretiforme *see* Orthoceras (Cycloceras) teretiforme

Orthoceras (Cycloceras) teretiforme Hall

4027 $\frac{12}{1}\frac{12}{1}$ TYPE Orthoceras teretiforme Hall. Paleontology of New York. 1847. 1 : 198, pl. 42, fig. 8a, b.

Trenton limestone — Watertown N. Y.

Orthoceras tetricum Hall

8 $\frac{12413}{1}$ TYPE Orthoceras tetricum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 45.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78B, fig. 4.

Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

9 $\frac{12413}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 2.

Schoharie grit — Clarksville N. Y.
C. Van Deloo, coll. 1862

0 $\frac{12413}{3}$ TYPE Hall. Paleontology of New York. 1879 v. 5, pt 2, pl. 80, fig. 5, 6.

Schoharie grit — Clarksville N. Y.
C. Van Deloo, coll. 1862

1 $\frac{12413}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 8.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

2 $\frac{12413}{5}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 9.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras tetricum *see* Orthoceras pravum

Orthoceras thestor *see* Orthoceras (Cycloceras) thestor

Orthoceras (Cycloceras) thestor Hall

33 $\frac{12414}{1}$ TYPE Orthoceras thestor Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 302, pl. 82, fig. 18.

Marcellus shale — Schoharie N. Y.
J. Gebhard purchase

Orthoceras thoas *see* Orthoceras (Dawsonoceras) thoas

Orthoceras (Dawsonoceras) thoas Hall

34 $\frac{12415}{1}$ HYPOTYPE Orthoceras thoas Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 47.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 1.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 41, fig. 1.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4035 $12\frac{1}{2}15$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 41, fig. 2.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4036 $12\frac{1}{3}15$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 41, fig. 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4037 $12\frac{1}{4}15$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 5.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 41, fig. 5.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4038 $12\frac{1}{5}15$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 41, fig. 6.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4039 $12\frac{1}{8}15$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 41, fig. 8.

Hall. Paleontology of New York. 1879. v. 5. pt 2, pl. 41, fig. 8.

Onondaga limestone — Clarence Hollow, Erie co. N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

4040 $12\frac{1}{7}15$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78B, fig. 5.

Schoharie grit — Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

4041 $\frac{12415}{8}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig 13.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4042 $\frac{12415}{9}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 10.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4043 $\frac{12415}{10}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 80, fig. 11.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4044 $\frac{12415}{11}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 112, fig. 7.
Onondaga limestone — Caledonia N. Y.
C. A. White, coll. 1860

Orthoceras thyestes Hall

4045 $\frac{12416}{1}$ TYPE Orthoceras thyestes Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 306, pl. 88, fig. 2.
Portage (Naples) beds — Watkins, Seneca co. N. Y.
Pickett collection

Orthoceras typum *see* Orthoceras aptum

Orthoceras typum? *see* Orthoceras bebryx

Orthoceras varum Hall

4046 $\frac{12417}{1}$ TYPE Orthoceras varum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 259, pl. 79, fig. 2.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4047 $\frac{12417}{2}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 79, fig. 4.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4048 $\frac{12417}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl 112, fig. 5, 6.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Orthoceras vastator Hall

4049 $\frac{12}{1}\frac{1}{8}$ TYPE Orthoceras (obliquum) vastator Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 243, pl. 78, fig. 1, 2.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4050 $\frac{12}{2}\frac{1}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78, fig. 3.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase
On slab with type of pl. 78, fig. 4.

4051 $\frac{12}{3}\frac{1}{8}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 78, fig. 4.
Schoharie grit — Schoharie N. Y.
J. Gebhard purchase
On slab with type of pl. 78, fig. 3.

Orthoceras (obliquum) vastator *see* Orthoceras vastator

Orthoceras zeus Hall

4052 $\frac{12}{1}\frac{1}{10}$ TYPE Orthoceras zeus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 235, pl. 75, fig. 1, 3.
Schoharie grit — The Helderberg, Albany co. N. Y.
C. Van Deloo, coll. 1862

4053 $\frac{12}{2}\frac{1}{10}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 75, fig. 2.
Schoharie grit — Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

Orthoceratites multicameratus *see* Orthoceras multicameratum

PARODICERAS Hyatt

Parodiceras discoideum Hall (sp.)

4054 $\frac{12}{1}\frac{1}{10}$ HYPOTYPE Goniatites discoideus Hall. 13th annual report of the New York state cabinet of natural history. 1860. p. 97.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 1.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 1.
Tully limestone — Smith's ledge, Otisco N. Y.

)55 $\frac{12440}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 4; pl. 74, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 4; pl. 74, fig. 3.

Marcellus shale (Agoniatite limestone)

Manlius, Onondaga co. N. Y.

)56 $\frac{12440}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 5, 6.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 5, 6.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

)57 $\frac{12440}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 71, fig. 8, 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 71, fig. 8, 9.

Marcellus shale (Agoniatite limestone) Manlius N. Y.

PHRAGMOCERAS Broderip (Sowerby)

Phragmoceras? *see* Phragmoceras corallophilum

Phragmoceras corallophilum Clarke

)58 $\frac{12460}{1}$ TYPE Phragmoceras? Hall. Paleontology of New York. 1852. 2:351, pl. 78, fig. 3a.

Phragmoceras corallophilum Clarke. 12th annual report of the New York state geologist. 1893. p. 90.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

)59 $\frac{12460}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 3b.

Clarke. 12th annual report of the New York state geologist. 1893. p. 90.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Phragmoceras? expansum Hall

)60 $\frac{12461}{1}$ TYPE Oncoceras expansum Hall. Paleontology of New York. 1852. 2:337, pl. 77A, fig. 2a, 2b.

Phragmoceras? expansum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 46, fig. 10, 11.

Coralline (Cobleskill) limestone Schoharie N. Y.

J. Gebhard purchase

Phragmoceras spinosum *see* Gyroceras (Cophinoceras) spinosum

Porcellia? rotatoria *see* Anarcestes plebeiformis

PROBELOCERAS Clarke

Probeloceras lutheri Clarke

4061 12480/1 HYPOTYPE Goniatites lutheri Clarke. United States geological survey bulletin 16. 1885. p. 50.
Probeloceras lutheri Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 1.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4062 12480/2 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 2.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4063 12480/3 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 4.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4064 12480/4 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 5.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

4065 12480/5 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 6.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

4066 12480/6 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 7.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

4067 12480/7 PLASTOTYPE Goniatites lutheri Clarke. United States geological survey bulletin 16. 1885. pl. 2, fig. 8.
Probeloceras lutheri Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 8.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12480/8 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 9.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

12480/9 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 10.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

12480/10 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 93, fig. 73.
Portage (Naples) beds — Honeoye lake, N. Y.
J. M. Clarke, donor

12480/11 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 93, fig. 74.
Portage (Naples) beds — Honeoye lake, N. Y.
J. M. Clarke, donor

Probeloceras (?) naplesense Clarke

12481/1 TYPE Probeloceras(?) naplesense Clarke. 16th annual report of the New York state geologist. 1898. p. 105, pl. 7, fig. 18.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

SANDBERGEROCERAS Hyatt

Sandbergeroceras chemungense Vanuxem (sp.)

12500/1 TYPE Goniatites chemungensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 182, fig. 1.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 9; pl. 74, fig. 6.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 9; pl. 74, fig. 6.
Chemung beds — Near Owego N. Y.
Geological survey collection

bergeroceras chemungense *var.* **aequicostatum** Hall (sp.)

12501/1 TYPE Goniatites chemungensis var. aequicostatus Hall. Description of new species of Goniatitidae. 1874. p. 3.
Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 10.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 69, fig. 10.

Chemung beds — Western New York

Sandbergeroceras syngonum Clarke

4075 $\frac{12502}{1}$ TYPE (?) (?) Sandbergeroceras syngonum Clarke. 16th annual report of the New York state geologist. 1898. p. 106, pl. 6, fig. 23.

Portage (Naples) beds — Honeoye lake, N. Y.
J. M. Clarke, donor

4076 $\frac{12502}{2}$ PLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 19.

Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

4077 $\frac{12502}{3}$ TYPE: PLASTOTYPE Goniatites chemungensis var. Clarke, United States geological survey bulletin 16. 1885. p. 51.

Sandbergeroceras syngonum Clarke. 16th annual report of the New York state geologist. 1898. pl. 7, fig. 20

Portage (Naples) beds — Snyder gully, Naples N. Y.
J. M. Clarke, donor

4078 $\frac{12502}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 107, fig. 79–81.

Portage (Naples) beds — Naples N. Y.
J. M. Clarke, donor

THORACOCERAS Eichwald

Thoracoceras wilsoni Clarke

4079 $\frac{12520}{1}$ TYPE: PLASTOTYPE Thoracoceras wilsoni Clarke. New York state museum bulletin 49. 1901. p. 126, pl. 8, fig. 1–5.

Marcellus shale (Agoniatite limestone) — Manlius N. Y.
J. D. Wilson, donor

4080 $\frac{12520}{2}$ PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. pl. 8, fig. 6.

Marcellus shale (Agoniatite limestone) — Manlius N. Y.
J. D. Wilson, donor

[1] Type unavoidably destroyed in taking squeeze.

TORNOCERAS Hyatt

Tornoceras bicostatum Hall (sp.)

12540/1 HYPOPLASTOTYPE[1] Goniatites bicostatus Hall. Geology of New York; report on the 4th district. 1843. p. 246.

Tornoceras bicostatum Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 4.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/2 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 5.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/3 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 6.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/4 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 7.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/5 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 8.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/6 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 9.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/7 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 10, 11.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

12540/8 HYPOPLASTOTYPE[1] Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 12.

Portage (Naples) beds Angola N. Y.
J. M. Clarke, donor

[1] Hypotype destroyed in making squeeze.

4089 $\frac{12540}{9}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 13.
Portage (Naples) beds Naples, Ontario co. N. Y.
J. M. Clarke, donor

Tornoceras edwin-halli Clarke

4090 $\frac{12541}{1}$ TYPE Tornoceras edwin-halli Clarke. 16th annual report of the New York state geologist. 1898. p. 111, fig. 85.
Upper Chemung beds Nile, Allegany co. N. Y.
M. Sheehy and J. Van Deloo, coll. 1893

Tornoceras peracutum Hall

4091 $\frac{12542}{1}$ TYPE Goniatites peracutus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 69, fig. 8; pl. 74, fig. 13.
Goniatites peracutus Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 463, pl. 69, fig. 8; pl. 74, fig. 13.
Tornoceras peracutum Clarke. 16th annual report of the New York state geologist. 1898. p. 118, fig. 96.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and C. Van Deloo, coll. 1866

Tornoceras rhysum Clarke

4092 $\frac{12543}{1}$ TYPE: PLASTOTYPE Tornoceras rhysum Clarke. 16th annual report of the New York state geologist. 1898. p. 121, fig. 100; pl. 8, fig. 14.
Portage (Naples) beds Java, Wyoming co. N. Y.
J. M. Clarke, donor

Tornoceras uniangulare Conrad (sp.)

4093 $\frac{12544}{1}$ HYPOTYPE Goniatites uniangularis Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:268.
Goniatites bicostatus Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 72, fig. 6, 7.
Goniatites uniangularis Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 72, fig. 6, 7.
Portage (Naples) beds
Mount Morris, Livingston co. N. Y.
Geological survey collection

12544/2 HYPOTYPE Hall. Paleontology of New York. 1888. v. 5, pt 2, supplement (=v. 7), pl. 127, fig. 10.
Hamilton beds Pratt's falls, Onondaga co. N. Y.

12544/3 HYPOTYPE Tornoceras uniangulare Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 15.
Portage (Naples) beds Honeoye lake, N. Y.
J. M. Clarke, donor

12544/4 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. pl. 8, fig. 16.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

12544/5 HYPOTYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 117, fig. 95.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

Tornoceras uniangulare *var.* **compressum** Clarke

12545/1 TYPE Tornoceras uniangulare var. compressum Clarke. 16th annual report of the New York state geologist. 1898. p. 116, pl. 8, fig. 18.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

Tornoceras uniangulare *var.* **obesum** Clarke

12546/1 TYPE Tornoceras uniangulare var. obesum Clarke. 16th annual report of the New York state geologist. 1898. p. 116, pl. 8, fig. 17.
Portage (Naples) beds Naples N. Y.
J. M. Clarke, donor

TROCHOCERAS Barrande

Trochoceras barrandei Hall

12560/1 TYPE Trochoceras barrandei Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 398, pl. 111, fig. 8.
Schoharie grit Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

12560/2 TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 9.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

4102 $\frac{12560}{3}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 10.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Trochoceras biton Hall

4103 $\frac{12561}{1}$ TYPE Trochoceras biton Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 395, pl. 111, fig. 7.

Schoharie grit — Clarksville, Albany co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Trochoceras clio *see* Trochoceras (Sphyradoceras) clio

Trochoceras clio *see* Trochoceras (Sphyradoceras) discoideum

Trochoceras (Sphyradoceras) clio Hall

4104 $\frac{12562}{1}$ HYPOTYPE Trochoceras clio Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 108.

Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 4.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 1.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4105 $\frac{12562}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 1, 2.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 2, 3.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4106 $\frac{12562}{3}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 4.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4107 $\frac{12562}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 7.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 9.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

8 $\frac{12562}{6}$ HYPOTYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 6.

Schoharie grit — Clarksville, Albany co. N. Y.

Trochoceras discoideum *see* Trochoceras (Sphyradoceras) discoideum

Trochoceras (Sphyradoceras) discoideum Hall

9 $\frac{12563}{1}$ TYPE Trochoceras discoideum Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 36.

Trochoceras clio Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 6.

Trochoceras discoideum Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 8.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Trochoceras eugenium Hall

0 $\frac{12564}{1}$ HYPOTYPE Trochoceras eugenium Hall. 14th annual report of the New York state cabinet of natural history. 1861. p. 108.

Trochoceras sp.? Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 3.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 58, fig. 3.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

1 $\frac{12564}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 59, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 59, fig. 11.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

Trochoceras expansum Hall

2 $\frac{12565}{1}$ TYPE Trochoceras expansum Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 402, pl. 111, fig. 5.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

Trochoceras gebhardi Hall

4113 $\frac{12566}{1}$ TYPE Trochoceras gebhardi Hall. Paleontology of New York. 1852. 2:335, pl. 77, fig. 2.
Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

4114 $\frac{12566}{2}$ TYPE Hall. Paleontology of New York. 1852. v. 2 pl. 77A, fig. 1b.
Coralline (Cobleskill) limestone Schoharie N. Y.
J. Gebhard purchase

Trochoceras obliquatum Hall

4115 $\frac{12567}{1}$ TYPE Trochoceras obliquatum Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, explanation of pl. 48.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 401, pl. 111, fig. 1, 2.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

Trochoceras orion Hall

4116 $\frac{12569}{1}$ TYPE Trochoceras orion Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 2.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 397, pl. 58, fig. 2.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

Trochoceras pandion Hall

4117 $\frac{12568}{1}$ TYPE Trochoceras pandion Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 7.
Hall. Paleontology of New York. 1879. v. 5, pt 2, p. 400, pl. 58, fig. 7.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

4118 $\frac{12568}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 8.
Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 58, fig. 8.
Schoharie grit Schoharie county, N. Y.
J. Gebhard purchase

19 $\frac{12569}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Cephalopoda, pl. 48, fig. 9.

Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 58, fig. 9.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

20 $\frac{12569}{4}$ TYPE Hall. Paleontology of New York. 1879. v. 5, pt 2, pl. 111, fig. 3.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

Trochoceras? (Gonioceras?) pandum *see* Eudoceras pandum

Trochoceras turbinatum Hall

21 $\frac{12570}{1}$ TYPE Trochoceras turbinatum Hall. Paleontology of New York. 1852. 2: 336, pl. 77, fig. 1.

Coralline (Cobleskill) limestone — Schoharie N. Y.

J. Gebhard purchase

TROCHOLITES Conrad

Trocholites ammonius (Vanuxem) Hall

22 $\frac{12580}{1}$ TYPE Trocholithus, Utica trocholite Vanuxem. Geology of New York; report on the 3d district. 1842. p. 57, fig. 3.

Trocholites ammonius Hall. Paleontology of New York. 1847. 1: 309, pl. 84, fig. 2a, 2b.

Utica shale — Canajoharie creek, Montgomery co. N. Y.

Geological survey collection

23 $\frac{12580}{2}$ TYPE Hall. Paleontology of New York. 1847. v. 1, pl. 84, fig. 2c.

Utica shale — East Canada creek, Herkimer co. N. Y.

Geological survey collection

Trocholites undatus (Conrad) Emmons

24 $\frac{12581}{1}$ PLASTOTYPE Inachus undatus (Conrad in mss) Emmons. Geology of New York; report on the 2d district. 1842. p. 394, fig. 104.

Lituites undatus Hall. Paleontology of New York. 1847. v. 1, pl. 13, fig. 1.

Black river limestone — Watertown N. Y.

Albany Institute, donor

4125 $\frac{12581}{3}$ Hall. Paleontology of New York. 1847. v. 1, pl. 13, fig. 1a, 1b.
Black river limestone Watertown N. Y.
Albany Institute, donor

Trocholithus, Utica trocholite *see* Trocholites ammonius

VAGINOCERAS Hyatt

Vaginoceras longissimum Hall (sp.)

4126 $\frac{12900}{1}$ TYPE Endoceras longissimum Hall. Paleontology of New York. 1847. 1:59, pl. 18, fig. 1, 1a.
Black river limestone Watertown N. Y.
Albany Institute, donor

CRUSTACEA

Acidaspis sp. *see* Ceratocephala sp.

Acidaspis sp. n.? *see* Lichas (Ceratolichas) dracon

Acidaspis sp. n.? *see* Lichas (Ceratolichas) gryps

Acidaspis callicera *see* Ceratocephala (Odontopleura) callicera

Acidaspis (Terataspis) eriopis *see* Lichas (Arges) eriopis

Acidaspis (Terataspis) eriopis *see* Lichas (Arges) hispidus

Acidaspis (Terataspis) grandis *see* Lichas (Terataspis) grandis

Acidaspis hamata *see* Ceratocephala (Dicranurus) hamata

Acidaspis romingeri *see* Ceratocephala (Ancyropyge) romingeri

Acidaspis (Ancyropyge) romingeri *see* Ceratocephala (Ancyropyge) romingeri

Acidaspis tuberculatus *see* Ceratocephala (Acidaspis) tuberculata

AMPYX Dalman

Ampyx hastatus *see* Ampyx (Lonchodomas) hastatus

Ampyx (Lonchodomas) hastatus Ruedemann

13000/1 TYPE Ampyx hastatus Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 1.

Ampyx (Lonchodomas) hastatus Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 1.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

13000/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 2–4.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 5.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/4 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 6.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/5 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 7.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/6 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 8.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/7 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 9.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13000/8 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 10.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4135 $\frac{13000}{6}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 30.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

APARCHITES Jones

Aparchites minutissimus Hall (sp.) *var.* **robustus** Ruedemann

4136 $\frac{13020}{1}$ TYPE Aparchites minutissimus Hall var. robustus Ruedemann. New York state museum bulletin 49. 1901. p. 74, pl. 7, fig. 6–8.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4137 $\frac{13020}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 9–11.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Arges consanguineus *see* Lichas (Arges) consanguineus

ARISTOZOE Barrande

Aristozoe troyensis Ford

4138 $\frac{13040}{1}$ TYPE Leperditia troyensis Ford. American journal of science and arts, ser. 3. 1873. 6:138 (not figured).

Walcott. United States geological survey bulletin 30. 1886. pl. 16, fig. 5.

Aristozoe troyensis Walcott. 10th annual report of the United States geological survey. 1890. pl. 80, fig. 2.

Lower Cambric — Troy N. Y.
S. W. Ford purchase

Asaphus ? acanthopleurus *see* Dalmanites (Coronura) myrmecophorus

Asaphus corycaeus *see* Proëtus corycaeus

Asaphus diurus *see* Dalmanites (Coronura) diurus

Asaphus micrurus *see* Dalmanites micrurus

Asaphus myrmecophorus *see* Dalmanites (Coronura) myrmecophorus

Asaphus nasutus *see* Dalmanites (Probolium) nasutus

Asaphus ? obtusus *see* Isotelus obtusus

Asaphus pleuroptyx *see* Dalmanites (Odontochile) limulurus

Asaphus pleuroptyx *see* Dalmanites micrurus

Asaphus pleuroptyx *see* Dalmanites (Odontochile) pleuroptyx

Asaphus selenurus *see* Dalmanites (Synphoria [Odontopleura]) selenurus

Asaphus ? trentonensis *see* Platymetopus trentonensis

Asmusia membranacea *see* Estheria membranacea

Atops trilineatus *see* Conocoryphe trilineata

BATHYURUS Billings

Bathyurus extans Hall (sp.)

9 13060/1 TYPE Asaphus ? extans Hall. Paleontology of New York. 1847. 1:228, pl. 60, fig. 2a, 2b.
Lowville limestone Mohawk valley, N. Y.

BEYRICHIA McCoy

Beyrichia sp.? Clarke

0 13080/1 HYPOTYPE Beyrichia sp.? Clarke. New York state museum memoir 3. 1900. pl. 9, fig. 14, 15.
Oriskanian Becraft mountain, Hudson N. Y.

Beyrichia ciliata *see* Ctenobolbina ciliata

Beyrichia clarkii Jones

1 13081/1 TYPE Beyrichia clarkii Jones. Quarterly journal of the Geological society of London. 1890. 46:17, fig. 2.
Manlius limestone Herkimer county, N. Y.
J. Gebhard purchase

Beyrichia kloedeni McCoy *var.* Jones

13082/1 TYPE Beyrichia kloedeni var. Jones. Quarterly journal of the Geological society of London. 1890. 46:538, pl. 21, fig. 1a, 1b.
Onondaga limestone (drift)
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

Beyrichia kolmodini Jones

4143 $\frac{13033}{1}$ TYPE Beyrichia kolmodini Jones. Quarterly journal of the Geological society of London. 1890. 46: 538, pl. 20, fig. 6.

Hamilton beds — Clark county, Ind.

J. M. Clarke purchase

Beyrichia oculina Hall

4144 $\frac{13034}{1}$ TYPE Beyrichia oculina Hall. Paleontology of New York. 1859. 3: 378 (not figured).

Jones. Quarterly journal of the Geological society of London. 1890. v. 46, pl. 1, fig. 4.

Coeymans limestone — Schoharie county, N. Y.

J. Gebhard purchase

Beyrichia parasitica Hall

4145 $\frac{13035}{1}$ TYPE Leperditia parasitica Hall. Paleontology of New York. 1859. 3:376 (not figured).

Beyrichia parasitica Jones. Quarterly journal of the Geological society of London. 1890. 46:17, fig. 1.

Coeymans limestone — Schoharie N. Y.

J. Gebhard purchase

On type of Orthoceras desideratum, Pal. N. Y. v. 3, pl. 71, fig. 4.

Beyrichia subquadrata Jones

4146 $\frac{13036}{1}$ TYPE: PLASTOTYPE Beyrichia subquadrata Jones. Quarterly journal of the Geological society of London. 1890. 46:537, pl. 20, fig. 4.

Onondaga limestone (drift) — Canandaigua N. Y.

J. M. Clarke purchase

BOLLIA Jones and Holl

Bollia bilobata Jones

4147 $\frac{13037}{1}$ TYPE Bollia bilobata Jones. Quarterly journal of the Geological society of London. 1890. 46:540. pl. 20, fig. 12.

Onondaga limestone (drift) — Canandaigua N. Y.

J. M. Clarke purchase

Bollia cornucopiae Ruedemann

4148 $\frac{13038}{1}$ TYPE Bollia cornucopiae Ruedemann. New York state museum bulletin 49. 1901. p. 82, pl. 6, fig. 1, 2.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

BRONTEUS Goldfuss

Bronteus barrandii Hall

13120/1 TYPE Bronteus barrandii Hall. Paleontology of New York. 1859. 3:350, pl. 73, fig. 1–4.
Coeymans limestone Schoharie N. Y.

Bronteus lunatus Billings

13121/1 HYPOTYPE Bronteus lunatus Billings. Geological survey of Canada; report of progress. 1853–56. p. 338.
Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 10.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Bronteus senescens Clarke

13122/1 TYPE Bronteus senescens Clarke. 8th annual report of the New York state geologist. 1889. p. 57, fig. 1.
Chemung beds Prattsburg, Steuben co. N. Y.
J. M. Clarke, donor

13122/2 TYPE Clarke. 15th annual report of the New York state geologist. 1897. 1:734, fig. 3.
Chemung beds Avoca, Steuben co. N. Y.
C. J. Sarle, coll.

13122/3 TYPE: PLASTOTYPE Clarke. 15th annual report of the New York state geologist. 1897. 1:734, fig. 4.
Chemung beds Avoca N. Y.
C. J. Sarle, coll.

Bronteus tullius *see* Bronteus (Thysanopeltis) tullius

Bronteus (Thysanopeltis) tullius Hall & Clarke

21123/1 TYPE Bronteus tullius Hall & Clarke. Paleontology of New York. 1888. 7:72, pl. 8A, fig. 34, 35.
Tully limestone Kingsley's hill, near Otisco, N. Y.
S. G. Williams, donor

21123/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 36.
Tully limestone Borodino, Onondaga co. N. Y.
S. G. Williams, donor

BUMASTUS Murchison

Bumastus ioxus Hall

4156 $\frac{13140}{1}$ HYPOTYPE Illaenus ioxus Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 378.

Illaenus (Bumastus) ioxus Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 13.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

4157 $\frac{13140}{2}$ HYPOTYPE Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 14.

Niagaran — Waldron Ind.

C. D. Walcott and C. Van Deloo, coll. 1878

Bumastus trentonensis Emmons (sp.)

4158 $\frac{13141}{1}$ HYPOTYPE Illaenus trentonensis Emmons. Geology of New York; report on the 2d district. 1842. p. 390.

Bumastus trentonensis Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 720, fig. 32.

Trenton limestone — Trenton Falls N. Y.

W. P. Rust purchase

BYTHOCYPRIS Brady

Bythocypris cylindrica Hall (sp.)

4159 $\frac{13160}{1}$ HYPOTYPE Leperditia (Isochilina) cylindrica Hall. 24th annual report of the New York state cabinet of natural history. 1872. p. 231.

Bythocypris cylindrica Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 26.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

4160 $\frac{13160}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49 1901. pl. 7, fig. 27.

Trenton conglomerate — Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

4161 $\frac{13160}{3}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 28.

Trenton conglomerate — Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Calymene anchiops *see* Dalmanites (Odontochile) anchiops

Calymene blumenbachi *see* Calymmene senaria

Calymene bufo *see* Phacops bufo (= rana)

Calymene bufo var. rana *see* Phacops rana

CALYMMENE Brongniart

Calymmene callicephala Green

52 13180 PLASTOTYPE Calymene callicephala Green. Monograph of the tribolites of North America. 1832. p. 30, cast no. 2.

Calymmene callicephala Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 699, fig. 22.

Lorraine beds

Labeled as "found in Hampshire, Virginia."

Albany Institute, [illegible]

Calymmene camerata Conrad

53 13181 TYPE Calymene camerata Conrad. Journal of the Academy of Natural Sciences of Philadelphia. 1842. 8:278 (not figured).

Hall. Paleontology of New York. 1852. v. 2, p. 72, fig. 1a.

Coralline (Cobleskill) limestone [illegible]

J. Gebhard [illegible]

54 13181 TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 1b.

Coralline (Cobleskill) limestone [illegible]

J. Gebhard [illegible]

55 13181 TYPE Hall. Paleontology of New York. 1852. v. 2, pl. 78, fig. 1c, 1e.

Coralline (Cobleskill) limestone [illegible]

J. Gebhard [illegible]

Calymene crassimarginatus *see* [illegible] crassimarginatus

Calymene macrophthalmus *see* [illegible] rana

ymene marginalis *see* Proetus [illegible]

mene? microps *see* Dalman[illegible]

nothi

Calymmene (?) multicosta Hall

4166 $\frac{13152}{1}$ TYPE Calymene multicosta Hall. Paleontology of New York. 1847. 1:228, pl. 60, fig. 3.

Lowville limestone — Isle La Motte, Lake Champlain

Calymmene platys Green

4167 $\frac{13152}{2}$ HYPOTYPE Calymene platys Green. Monograph of the trilobites of North America. 1832. p. 32.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 3.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 1.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

4168 $\frac{13152}{3}$ TYPE: PLASTOTYPE Green. Monograph of the trilobites of North America. 1832. p. 32, casts 4, 5.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 2.

Schoharie grit — The Helderberg, Albany co. N. Y.
T. R. Beck, coll.; Albany Institute, donor

4169 $\frac{13152}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 4, 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 3, 7.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

4170 $\frac{13152}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 4.

Schoharie grit — Schoharie county, N. Y.
J. Gebhard purchase

4171 $\frac{13152}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 6.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 5.

Schoharie grit — Schoharie county, N. Y.
C. Van Deloo, coll. 1862

4172 $\frac{13183}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 6.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

4173 $\frac{13183}{1}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 9.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 8.
Schoharie grit Schoharie N. Y.
J. Gebhard purchase

4174 $\frac{13183}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 1, fig. 8.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 1, fig. 9.
Schoharie grit. Schoharie N. Y.

Calymene rowi *see* Proëtus rowi

Calymmene senaria Conrad

4175 $\frac{13184}{1}$ HYPOPLASTOTYPE Calymene blumenbachi (Brongniart) Green. Monograph of the trilobites of North America. 1832. p. 28, cast no. 1.
Calymene senaria Conrad. Annual report of the New York state geological survey. 1841. p. 49.
Trenton limestone Trenton Falls N. Y.
Albany Institute, donor

4176 $\frac{13184}{2}$ HYPOTYPE Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 700, fig. 3.
Trenton limestone Trenton Falls N. Y.

CERATIOCARIS McCoy

Ceratiocaris armatus *see* Echinocaris punctata

Ceratiocaris (?) beecheri Clarke

4177 $\frac{13200}{1}$ PLASTOTYPE Ceratiocaris beecheri Clarke. United States geological survey bulletin 16. 1885. p. 44, pl. 2, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 3.
Portage (Naples) beds Son Yea, Livingston co. N. Y.
J. M. Clarke purchase

Ceratiocaris longicauda Hall

4178 $\frac{13201}{1}$ TYPE Ceratiocaris longicaudus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 73, pl. 1, fig. 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 1.

Genesee shale — Bristol Center, Ontario co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

Ceratiocaris longicaudus *see* Bactrites aciculum under Cephalopoda

Ceratiocaris (Limnocaris) praecedens Clarke

4179 $\frac{13202}{1}$ TYPE Ceratiocaris (Limnocaris) praecedens Clarke. Annual report of the New York state paleontologist. 1901. p. 92, pl. 3, fig. 5.

Salina beds — Erie canal, 2 miles northwest of Pittsford, Monroe co. N. Y.
C. J. Sarle purchase

4180 $\frac{13202}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 6.

Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4181 $\frac{13202}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 7.

Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4182 $\frac{13202}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 8.

Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4183 $\frac{13202}{5}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 9.

Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4184 $\frac{13202}{6}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 10.

Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

Ceratiocaris ? punctatus *see* Echinocaris punctata

Ceratiocaris (Aristozoe) punctatus *see* Echinocaris punctata

CERATOCEPHALA Warder

Ceratocephala sp.

4185 $\frac{13220}{1}$ TYPE Acidaspis sp. Hall & Clarke. Paleontology of New York. 1888. 7:71, pl. 16B, fig. 14.
Onondaga limestone (chert) Cayuga Ont.

Ceratocephala (Odontopleura) callicera Hall & Clarke

4186 $\frac{13221}{1}$ PLASTOTYPE Acidaspis callicera Hall & Clarke. Paleontology of New York. 1888. 7:69, pl. 16B, fig. 1, 2.
Onondaga limestone Camillus, Onondaga co. N. Y.

4187 $\frac{13221}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16B, fig. 3–7.
Onondaga limestone Cayuga Ont.
C. D. Walcott, coll. 1878

4188 $\frac{13221}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16B, fig. 9
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4189 $\frac{13221}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16B, fig. 13.
Schoharie grit Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

Ceratocephala (Dicranurus) hamata Conrad

4190 $\frac{13222}{1}$ HYPOTYPE Dicranurus hamatus Conrad. Annual report of the New York state geological survey. 1841. p. 39.
Acidaspis hamata Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 16.
New Scotland beds Albany (or Schoharie) county, N. Y.

4191 $\frac{13222}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 17.
New Scotland beds Albany (or Schoharie) county, N. Y.

4192 $\frac{13222}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 19.
New Scotland beds Albany (or Schoharie) county, N. Y

4193 $\frac{13222}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 19a.
New Scotland beds Albany (or Schoharie) county, N. Y.

4194 $\frac{13222}{5}$ HYPOTYPE Ceratocephala (Dicranurus) hamata Clarke. 10th annual report of the New York state geologist. 1891. pl. 1, fig. 6.

New Scotland beds Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

Ceratocephala (Ancyropyge) romingeri Hall & Clarke

4195 $\frac{13223}{1}$ PLASTOTYPE Acidaspis romingeri Hall & Clarke. Paleontology of New York. 1888. 7:71, pl. 16B, fig. 15-18.

Acidaspis (Ancyropyge) romingeri Clarke. 10th annual report of the New York state geologist. 1891. pl. 2, fig. 3, 4.

Hamilton beds Little Traverse bay, Mich.

Ceratocephala (Acidaspis) tuberculata Conrad

4196 $\frac{13224}{1}$ HYPOTYPE Acidaspis tuberculatus Conrad. Annual report of the New York state geological survey. 1840. p. 205.

Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 1.

New Scotland beds Albany (or Schoharie) county, N.Y.

4197 $\frac{13224}{2}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 1a (counterpart of pl. 79, fig. 1).

New Scotland beds Albany (or Schoharie) county, N.Y.

4198 $\frac{13224}{3}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 3, 5.

New Scotland beds Albany (or Schoharie) county, N.Y.

4199 $\frac{13224}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 12.

New Scotland beds Albany (or Schoharie) county, N.Y.

4200 $\frac{13224}{5}$ HYPOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 79, fig. 14.

New Scotland beds Schoharie N. Y.
J. Gebhard purchase

4201 $\frac{13224}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 26.

Oriskanian Becraft mountain, Hudson N. Y.

CERAURUS Green

Ceraurus? Hall

4202 $\frac{13240}{1}$ HYPOTYPE Ceraurus sp. indet. Hall. Paleontology of New York. 1847. 1:25, pl. 4bis, fig. 20.

Chazy limestone Chazy, Clinton co. N. Y.

Ceraurus pleurexanthemus Green

03 $\frac{13241}{1}$ TYPE Ceraurus pleurexanthemus Green. Monograph of the trilobites of North America. 1832. p. 84, pl. 1, fig. 10; original of cast no. 33.

Trenton limestone — Newport, Herkimer co. N. Y.
Albany Institute, donor

CONOCORYPHE Corda

Conocoryphe trilineata Emmons (sp.)

04 $\frac{13250}{1}$ PLASTOTYPE Atops trilineatus Emmons. Taconic system. 1844. p. 20, fig. 8 (1st specimen).

Emmons. Agriculture of New York. 1846. 1:64, fig. 8 (1st specimen).

Ptychoparia trilineata Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1.

Conocoryphe trilineata Walcott. 10th annual report of the United States geological survey. 1886. pl. 95, fig. 5.

Lower Cambric — Reynold's Inn, Washington co. N. Y.
S. W. Ford purchase

05 $\frac{13250}{2}$ HYPOTYPE Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1a (figure based on two specimens).

Lower Cambric — Troy N. Y.
S. W. Ford purchase

CORDANIA Clarke

Cordania sp. nov. *see* Cordania becraftensis

Cordania arenicola Hall & Clarke (sp.)

06 $\frac{13280}{1}$ PLASTOTYPE Phaëthonides arenicolus Hall & Clarke. Paleontology of New York. 1888. 7:134, pl. 25, fig. 12.

Schoharie grit — Schoharie N. Y.

Cordania becraftensis Clarke

07 $\frac{13281}{1}$ TYPE Cordania sp. nov. Clarke. American journal of science. 1892. 44:412.

Cordania hudsonica (in error) Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 17.

Oriskanian — Becraft mountain, Hudson N. Y.

5 $\frac{13281}{2}$ TYPE: PLASTOTYPE Cordania becraftensis Clarke. New York state museum memoir 3. 1900. p. 22, pl. 2, fig. 19.

Oriskanian — Becraft mountain, Hudson N. Y.

4209 $13\frac{2}{3}81$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 20.
Oriskanian Becraft mountain, Hudson N. Y.

4210 $13\frac{2}{4}81$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 21.
Oriskanian Becraft mountain, Hudson N. Y.

4211 $13\frac{2}{5}81$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 22.
Oriskanian Becraft mountain, Hudson N. Y.

4212 $13\frac{2}{6}81$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 23.
Oriskanian Becraft mountain, Hudson N. Y.

Cordania cyclurus Hall & Clarke (sp.)

4213 $13\frac{2}{1}82$ TYPE Phaëthonides cyclurus Hall & Clarke. Paleontology of New York. 1888. 7:137, pl. 24, fig. 26, 26a.
New Scotland beds Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

4214 $13\frac{2}{2}82$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 27.
New Scotland beds Near Clarksville N. Y.
J. M. Clarke purchase

4215 $13\frac{2}{3}82$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 25, fig. 11.
New Scotland beds Near Clarksville N. Y.
J. M. Clarke purchase

Cordania gemmaea Hall & Clarke (sp.)

4216 $13\frac{2}{1}83$ TYPE Phaëthonides gemmaeus Hall & Clarke. Paleontology of New York. 1888. 7:136, pl. 24, fig. 32.
Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

4217 $13\frac{2}{2}83$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 33.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
J. M. Clarke purchase

4218 $13\frac{2}{3}83$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 34.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

13283/4 TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 35.
Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase

13283/5 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 36.
Onondaga limestone (chert in drift)
Canandaigua N. Y.
J. M. Clarke purchase

Cordania hudsonica Clarke

13284/1 TYPE Cordania hudsonica Clarke. New York state museum memoir 3. 1900. p. 24, pl. 2, fig. 18.
Oriskanian Becraft mountain, Hudson N. Y.

Cordania hudsonica (in error) *see* Cordania becraftensis

Cordania macrobius Billings (sp.)

13285/1 HYPOTYPE Proëtus macrobius Billings. Proceedings of the Portland society of natural history. 1863. 1:123.
Phaëthonides macrobius Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 24, 24a.
Helderbergian Square lake, Me.
J. M. Clarke purchase

Cordania varicella Hall & Clarke (sp.)

13286/1 TYPE Phaëthonides varicella Hall & Clarke. Paleontology of New York. 1888. 7:135, pl. 24, fig. 29, 29a.
Onondaga limestone Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

13286/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 30, 30a.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

13286/3 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 31.
Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase
On specimen with type of pl. 24, fig. 30, 30a.

Coronura diurus *see* Dalmanites (Coronura) diurus

Cryphaeus boothi *see* Dalmanites (Cryphaeus) boothi

Cryphaeus collitelus *see* Dalmanites (Cryphaeus) boothi *var.* calliteles

Cryptolithus tesselatus *see* Trinucleus concentricus

CTENOBOLBINA Ulrich

Ctenobolbina ciliata Emmons (sp.)

4226 $\frac{13300}{1}$ HYPOTYPE: HYPOPLASTOTYPE Beyrichia ciliata Emmons. American geology. 1855. p. 219.

Ctenobolbina ciliata Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 8, 9.

Upper Utica shale — Menands, Albany co. N. Y.
R. Ruedemann, coll. 1900

Ctenobolbina ciliata Emmons *var.* **cornuta** Ruedemann

4227 $\frac{13301}{1}$ TYPE Ctenobolbina ciliata Emmons var. cornuta Ruedemann. New York state museum bulletin 42. 1901. p. 575, pl. 2, fig. 5.

Lower Utica shale — Mechanicville, Saratoga co. N. Y.
R. Ruedemann, coll. 1900

4228 $\frac{13301}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 6.

Lower Utica shale — Mechanicville N. Y.
R. Ruedemann, coll. 1900

4229 $\frac{13301}{3}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 7.

Upper Utica shale — Green Island, Albany co. N. Y.
R. Ruedemann, coll. 1900

Ctenobolbina subrotunda Ruedemann

4230 $\frac{13302}{1}$ TYPE: PLASTOTYPE Ctenobolbina subrotunda Ruedemann. New York state museum bulletin 42. 1901. p. 576, pl. 2, fig. 1, 2.

Trenton shale — Port Schuyler, Albany co. N. Y.
R. Ruedemann, coll. 1899

4231 $\frac{13302}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 3, 4.

Trenton shale — Port Schuyler N. Y.
R. Ruedemann, coll. 1899

CYBELE Lovèn

Cybele sp.

4232 $\frac{13320}{1}$ TYPE: PLASTOTYPE Cybele sp. Ruedemann. New York state museum bulletin 49. 1901. p. 66, pl. 4, fig. 12.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900
On slab with type of Cyrtospira attenuata, New York state museum bulletin 49, pl. 2, fig. 8.

CYPHASPIS Burmeister

Cyphaspis coelebs Hall & Clarke

4233 $\frac{13340}{1}$ TYPE: PLASTOTYPE Cyphaspis coelebs Hall & Clarke. Paleontology of New York. 1888. 7:151, pl. 24, fig. 1.
Helderbergian Schoharie, Schoharie co. N. Y.
J. Gebhard purchase

Cyphaspis craspedota Hall & Clarke

4234 $\frac{13341}{1}$ TYPE Cyphaspis craspedota Hall & Clarke. Paleontology of New York. 1888. 7:148, pl. 16, fig. 22.
Hamilton beds Centerfield, Ontario co. N. Y
J. M. Clarke purchase
On slab with types of Dalmanites (Cryphaeus) boothi var. calliteles and Phacops rana.

4235 $\frac{13341}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888 v. 7, pl. 24, fig. 15–17.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with type of Dalmanites (Cryphaeus) boothi var. calliteles, Pal. N. Y. v. 7, pl. 24, fig. 15.

4236 $\frac{13341}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 18, 19.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4237 $\frac{13341}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 20.
Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

Cyphaspis diadema Hall & Clarke

4238 $\frac{13342}{1}$ TYPE: PLASTOTYPE Cyphaspis diadema Hall & Clarke. Paleontology of New York. 1888. 7:141, pl. 24, fig. 13, 13a.

Onondaga limestone

Near Canandaigua, Ontario co. N.Y.

J. M. Clarke purchase

Cyphaspis hudsonica Ruedemann

4239 $\frac{13343}{1}$ TYPE Cyphaspis hudsonica Ruedemann. New York state museum bulletin 49. 1901. p. 64, pl. 4, fig. 8, 9.

Upper Utica shale Green Island, Albany co. N.Y.

R. Ruedemann, coll. 1899

Cyphaspis hybrida Hall & Clarke

4240 $\frac{13344}{1}$ TYPE: PLASTOTYPE Cyphaspis hybrida Hall & Clarke. Paleontology of New York. 1888. 7:144, pl. 24, fig. 14.

Onondaga limestone (drift) Canandaigua N.Y.

J. M. Clarke purchase

Cyphaspis matutina Ruedemann

4241 $\frac{13345}{1}$ TYPE Cyphaspis matutina Ruedemann. New York state museum bulletin 49. 1901. p. 62, pl. 4, fig. 5, 6.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N.Y.

R. Ruedemann, coll. 1900

4242 $\frac{13345}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 7.

Trenton conglomerate Rysedorph hill, N.Y.

R. Ruedemann, coll. 1900

Cyphaspis minuscula Hall

4243 $\frac{13346}{1}$ TYPE Phillipsia minuscula Hall. Illustrations of Devonian fossils. 1876. Crustacea, explanation of pl. 20.

Cyphaspis minuscula Hall & Clarke. Paleontology of New York. 1888. 7:140, pl. 24, fig. 7.

Schoharie grit Near Clarksville, Albany co. N.Y.

J. M. Clarke purchase

4244 $\frac{13346}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 8, 8a.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4245 $\frac{13346}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 9, 10.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4246 $\frac{13346}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 11.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase
On slab with Phacops cristata var. pipa, v. 7, pl. 8A, fig. 9.

4247 $\frac{13346}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 12.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4248 $\frac{13346}{6}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 24.
Oriskanian Becraft mountain, Hudson N. Y.

4249 $\frac{13346}{7}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 25.
Oriskanian Becraft mountain, Hudson N. Y.

Cyphaspis ornata Hall (sp.)

4250 $\frac{13347}{1}$ TYPE Phillipsia? (Brachymetopus) ornata Hall. Illustrations of Devonian fossils. 1876. Crustacea, explanation of pl. 21.
Cyphaspis ornata Hall & Clarke. Paleontology of New York. 1888. 7:145, pl. 24, fig. 21, 21a.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

Cyphaspis ornata Hall *var.* **baccata** Hall & Clarke

4251 $\frac{13348}{1}$ TYPE Cyphaspis ornata var. baccata Hall & Clarke. Paleontology of New York. 1888. 7:146, pl. 24, fig. 22, 22a.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

4252 $\frac{13348}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 23.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

Cyphaspis stephanophora Hall & Clarke

4253 $\frac{13349}{1}$ TYPE Cyphaspis stephanophora Hall & Clarke Paleontology of New York. 1888. 7:142, pl. 24, fig. 2, 3.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4254 $\frac{13349}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 4.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4255 $\frac{13349}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 5.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4256 $\frac{13349}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 6, 6a.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

Cytherina fabulites *see* Leperditia fabulites

Dalmania erina *see* Dalmanites (Odontochile) erinus

Dalmania macrops *see* Dalmanites (Coronura?) macrops

Dalmania paitúna *see* Dalmanites (Cryphaeus) paitúna

Dalmania pleuroptyx *see* Dalmanites micrurus

DALMANITES (Emmrich) Barrande

Dalmanites sp. nov. A. *see* Dalmanites (Synphoria) stemmatus

Dalmanites sp. nov. A. *see* Dalmanites (Synphoria) stemmatus *var.* convergens

Dalmanites sp. nov. B. *see* Dalmanites bisignatus

Dalmanites sp. n.? *see* Dalmanites (Synphoria) anchiops *var.* sobrinus

Dalmanites achates Billings

12360/1 HYPOTYPE Dalmanites achates Billings. Canadian naturalist and geologist. 1860. 5 : 63.

Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 726, 727, fig. 44.

Trenton limestone — Trenton Falls N. Y.
W. P. Rust purchase

Dalmanites aegeria *see* Dalmanites (Odontocephalus) aegeria

Dalmanites (Odontocephalus) aegeria Hall

12361/1 TYPE Dalmania aegeria Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. [p. 57.

Dalmanites aegeria Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 5, 6.

Dalmanites (Odontocephalus) aegeria Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 1, 2, 5.

Onondaga limestone — Williamsville, Erie co. N. Y.
J. M. Clarke, coll. 1885

12361/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 10.

Onondaga limestone — Near Clarence, Erie co. N. Y.
J. M. Clarke, coll. 1885

12361/3 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 11.

Onondaga limestone — Near Clarence N. Y.
J. M. Clarke, coll. 1885

Dalmanites anchiops *see* Dalmanites (Synphoria) anchiops

Dalmanites (Chasmops) anchiops *see* Dalmanites (Synphoria) anchiops

Dalmanites (Synphoria) anchiops Green (sp.)

12362/1P HYPOTYPE Calymene anchiops Green. Monograph of the trilobites of North America. 1832. p. 35.

Dalmanites anchiops Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 3, 4.

Dalmanites (Chasmops) anchiops Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 2, 3.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

4262 $\frac{13362}{2}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 5, 6, 9.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 4–6.

Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

4263 $\frac{13362}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 12.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

4264 $\frac{13362}{4}$ TYPE Calymene anchiops Green. Monograph of the trilobites of North America. 1832. p. 35, original of cast no. 7.

Dalmanites anchiops Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 12.

Dalmanites (Chasmops) anchiops Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 13.

Schoharie grit — Ulster county, N. Y.

4265 $\frac{13362}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 8.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 5.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

4266 $\frac{13362}{6}$ HYOPTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 10, 11.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 8, 9.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

13362/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 10.

Schoharie grit — Knox, Albany co. N. Y. C. Van Deloo, coll. 1862

13362/8 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 13.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 12.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

13362/9 HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 14.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 10, fig. 13.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase

Dalmanites anchiops var. armata *see* Dalmanites (Synphoria) anchiops *var.* armatus

Dalmanites (Chasmops) anchiops var armata *see* Dalmanites (Synphoria) anchiops *var.* armatus

manites (Synphoria) anchiops Green (sp.) *var.* **armatus** Hall

13362/1 TYPE Dalmania anchiops var. armata Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 56.

Dalmanites anchiops var. armatus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 2.

Dalmanites (Chasmops) anchiops var. armatus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 7.

Schoharie grit — Schoharie county, N. Y. J. Gebhard purchase

13362/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 8.

Schoharie grit — Near Clarksville, Albany co. N. Y. C. Van Deloo, coll. 1862

4272 $\frac{13363}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 8.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 9.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

Dalmanites (Chasmops) anchiops var. sobrinus *see* Dalmanites (Synphoria) anchiops *var.* sobrinus

Dalmanites (Synphoria) anchiops Green (sp.) *var.* **sobrinus** Hall & Clarke

4273 $\frac{13364}{1}$ TYPE Dalmanites sp. n.? Illustrations of Devonian fossils. 1876. Crustacea, pl. 9, fig. 11.

Dalmanites (Chasmops) anchiops var. sobrinus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 9, fig. 11.

Schoharie grit — Schoharie N. Y.

C. Van Deloo, coll. 1862

Dalmanites aspectans *see* Dalmanites (Coronura) diurus

Dalmanites (Coronura) aspectans *see* Dalmanites (Coronura) diurus

Dalmanites australis Clarke

4274 $\frac{13365}{1}$ PLASTOTYPE Dalmanites australis Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:29, pl. 2, fig. 11, 13.

Maecurú sandstone (Lower Devonic) — Rio Maecurú, Pará, Brazil

Dalmanites bifida *see* Dalmanites (Odontocephalus) bifidus

Dalmanites (Odontocephalus) bifidus Hall

4275 $\frac{13366}{1}$ TYPE Dalmania bifida Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 63.

Dalmanites (Odontocephalus) bifidus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11 B, fig. 23.

Onondaga limestone

Lime Rock, near Leroy, Genesee co. N. Y.

J. M. Clarke, coll. 1886

13366 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 24, 25.
Onondaga limestone Lime Rock, near Leroy N. Y.
J. M. Clarke, coll. 1886

Dalmanites bisignatus Clarke

13367 1 TYPE: PLASTOTYPE Dalmanites sp. nov. B, Clarke. American journal of science. 1892. 44:412.
Dalmanites bisignatus Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 6.
Oriskanian Becraft mountain, Hudson N. Y.

13367 2 TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 7.
Oriskanian Becraft mountain, Hudson N. Y.

13367 3 TYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 8.
Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites boothi *see* Dalmanites (Cryphaeus) boothi

Dalmanites boothii *see* Dalmanites (Cryphaeus) boothi *var.* calliteles

Dalmanites (Cryphaeus) boothi Green (sp.)

13368 1 PLASTOTYPE ?Calymene microps Green. Monograph of the trilobites of North America. 1832. p. 34, cast no. 6.
Said to be from a black limestone at Ripley O. Albany Institute, donor.

13368 2 HYPOTYPE Cryphaeus boothi Green. American journal of science and arts. 1837. 32:343.
Dalmanites boothi Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 1, 2.
Dalmanites (Cryphaeus) boothi Hall & Clarke. Paleontology of New York. 1888. v.7, pl. 16, fig. 1, 2.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

13368 3 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 5.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 3.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

4283 $\frac{13368}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 6.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 4.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

4284 $\frac{13368}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 14.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 4.

Hamilton beds Near Geneseo, Livingston co. N. Y.

C. A. White and C. Van Deloo, coll. 1860

4285 $\frac{13368}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 11.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 5.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

4286 $\frac{13368}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 6.

Hamilton beds Near Geneseo N. Y.

C. A. White and C. Van Deloo, coll. 1860

4287 $\frac{13368}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 12.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 7.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

Dalmanites (Cryphaeus) boothi Green (sp.) *var.* **calliteles** Green

4288 $\frac{13369}{1}$ HYPOTYPE Cryphaeus collitelus Green. American journal of science and arts. 1837. 32:346.

Dalmanites boothii Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 3, 4.

Dalmanites (Cryphaeus) boothi var. calliteles Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 9, 14, 15.

Hamilton beds Canandaigua lake, N. Y.

C. A. White and C. Van Deloo, coll. 1860

13369/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 6; pl. 16A, fig. 13.
Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

13369/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 7; pl. 16A, fig. 14.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

13369/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 8.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

13369/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 10.
Hamilton beds Canandaigua, Ontario co. N. Y
J. M. Clarke purchase

13369/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 11, 12.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

13369/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 13.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

13369/8 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 7.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 16.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

13369/9 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 16, fig. 8.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

13369/10 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 19–21.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4298 $\frac{13369}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 22.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase
On slab with hypotype of Phacops rana and Cyphaspis craspedota.

4299 $\frac{13369}{19}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 10.
Tully limestone Goodwin's, Cayuga lake, N. Y.
S. G. Williams donor

4300 $\frac{13369}{13}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 11.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4301 $\frac{13369}{14}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 15.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase

4302 $\frac{13369}{15}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16A, fig. 16.
Hamilton beds Hopewell, Ontario co. N. Y.
J. M. Clarke purchase

4303 $\frac{13369}{16}$ HYPOTYPE: 2 specimens Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 24, fig. 15.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with type of Cyphaspis craspedota Pal. N. Y. v. 7, pl. 24, fig. 15–17.

4304 $\frac{13369}{17}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 22.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

Dalmanites calypso *see* Dalmanites (Odontochile) calypso

Dalmanites (Chasmops) calypso *see* Dalmanites (Odontochile) calypso

Dalmanites (Odontochile) calypso Hall

4305 $\frac{13370}{1}$ PLASTOTYPE Dalmanites calypso Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 61.

Dalmanites (Chasmops) calypso Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 19, 20.

Onondaga limestone — Sandusky O.

Dalmanites (Cryphaeus) comis Hall & Clarke

18371/1 TYPE Dalmanites (Cryphaeus) comis Hall & Clarke. Paleontology of New York. 1888. 7:41, pl. 16A, fig. 1.

Onondaga limestone (chert)

Walpole, Cayuga, Ont.
C. D. Walcott, coll. 1878

Dalmanites concinnus *see* Dalmanites (Odontochile) concinnus

Dalmanites (Hausmannia) concinnus *see* Dalmanites (Odontochile) concinnus

Dalmanites (Odontochile) concinnus Hall

18372/1 TYPE Dalmanites concinnus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 3.

Dalmanites (Hausmannia) concinnus Hall & Clarke. Paleontology of New York. 1888. 7:30, pl. 11A, fig. 9.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

18372/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 4, 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 10, 11.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

Dalmanites (Hausmannia) concinnus var. serrula *see* Dalmanites (Cryphina) serrulus

Dalmanites coronatus *see* Dalmanites (Odontocephalus?) coronatus?

Dalmanites (Odontocephalus?) coronatus? Hall

18373/1 HYPOTYPE? Dalmania coronata Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 58.

Dalmanites (Odontocephalus?) coronatus? Hall & Clarke. Paleontology of New York. 1888 v. 7. pl. 11B. fig. 14.

Orondaga limestone — Schoharie N. Y.
J. Gebhard purchase

Dalmanites dentatus *see* Dalmanites (Coryocephalus) dentatus

Dalmanites Coryocephalus dentatus Barrett

[illegible] HYPOTYPE Dalmanites dentata Barrett. American journal of science and arts. ser. 3. 1876. 11:200.

Dalmanites (Coryocephalus) dentatus Hall & Clarke. Paleontology of New York. 1888. v. 7. pl. 11A. fig. 3.

New Scotland beds — Port Jervis, Orange co. N. Y.
J. W. Hall coll. 1877

[illegible] HYPOTYPE Hall & Clarke. Paleontology of New York. 1888 v. 7. pl. 11A. fig. 5

New Scotland beds — Port Jervis N. Y.
J. W. Hall coll. 1877

[illegible] *see* Dalmanites [illegible]

Dalmanites Carinura [illegible]

[illegible] Green. American [illegible]

[illegible] Hall [illegible]

[illegible] New York. 1888. [illegible]

[illegible] Schoharie N. Y.
[illegible] purchase

[illegible] Paleontology of New York. 1888.

[illegible] Columbus O.
[illegible] Whitfield coll. 1865

3715 HYPOTYPE Dalmanites (Coronura) aspectans Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 9.

Onondaga limestone — Lime Rock, near Leroy N. Y. J. M. Clarke, coll. 1885.

3716 HYPOTYPE? Dalmanites denticulatus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 1.

Dalmanites (Coronura) aspectans (Conrad)? Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 13.

Onondaga limestone — Near Clarksville, Albany co. N. Y. C. Van Deloo, coll. 1865

3715 HYPOTYPE Coronura diurus Clarke. 10th annual report of the New York state geologist. 1891. pl. 4, fig. 1.

Onondaga limestone — Leroy N. Y. A. L. Arey purchase

Dalmanites dolphi *see* Dalmanites (Corycephalus) dolphi

Dalmanites (Corycephalus) dolphi Clarke

3710 TYPE Dalmanites dolphi Clarke. 12th annual report of the New York state geologist. 1893. p. 49, fig. 1.

Helderbergian — Port Jervis, Orange co. N. Y. J. M. Dolph, donor

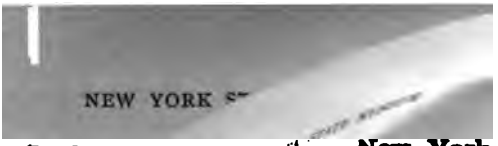
Dalmanites emarginatus *see* Dalmanites (Coronura) emarginatus

Dalmanites (Coronura) emarginatus Hall

3711 TYPE Dalmanites emarginatus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 10, fig. 2.

Dalmanites (Coronura) emarginatus Hall & Clarke. Paleontology of New York. 1888. 7:40, pl. 11A, fig. 7.

Schoharie grit — Schoharie N. Y. J. Gebhard purchase



Dalm- New York. 1888. v. 7,
natr
1889
Schoharie N. Y.
J. Gebhard purchase

Dalmanites erina *see* Dalmanites (Odontochile) erina

Dalmanites (Chasmops?) erina *see* Dalmanites (Odontochile) erinus

4310 Dalmanites (Odontochile) erinus Hall

Dalmania erina Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 62.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 3, 4.

Dalmanites (Chasmops?) erina Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 16, 17.

Onondaga limestone Clarence, Erie co. N. Y.

4321 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 18.

Onondaga limestone (drift)

Naples, Ontario co. N. Y.
J. M. Clarke purchase

Dalmanites galea Clarke

4322 PLASTOTYPE Dalmanites galea Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:31 pl. 2, fig. 4.

Maecurú sandstone (Lower Devonic)

Rio Maecurú, Pará, Brazil

Dalmanites gemellus Clarke

4323 PLASTOTYPE Dalmanites gemellus Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:38, pl. 2, fig. 14.

Maecurú sandstone (Lower Devonic)

Rio Maecurú, Pará, Brazil

Dalmanites glabratus *see* Dalmanites (Odontochile) limulurus

Dalmanites helena *see* Dalmanites (Coronura) diurus

Dalmanites (Odontochile) limulurus Green

13381/1 TYPE Asaphus pleuroptyx Green. Monograph of the trilobites of North America. 1832. p. 55; specimen mentioned p. 56.

Lockport limestone — Genesee river, N. Y.
Albany Institute, donor

4325 13381/2 TYPE Dalmanites wetherilli Green. Monograph of the trilobites of North America. 1832. p. 57; original of cast no. 20.

Lockport limestone — Rochester N. Y.
Albany Institute, donor

4326 13381/3 HYPOPLASTOTYPE? Dalmanites glabratus Green. Monograph of the trilobites of North America. 1832. p. 52; cast no. 17.

Horizon? — Locality said to be Ripley O.
Albany Institute, donor

Dalmanites (Chasmops) macrops *see* Dalmanites (Coronura?) macrops

Dalmanites (Coronura?) macrops Hall

4327 13382/1 TYPE Dalmania macrops Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 59.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 9, 10 (not mentioned in explanation of plate).

Dalmanites (Chasmops) macrops Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 14, 15.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

Dalmanites maecuruus Clarke

4328 13383/1 PLASTOTYPE Dalmanites maecurua Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9: 23, pl. 2, fig. 1.

Maecurú sandstone (Lower Devonic)
Rio Maecurú, Pará, Brazil

4329 13383/2 PLASTOTYPE Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9, pl. 2, fig. 3.

Maecurú sandstone (Lower Devonic)
Rio Maecurú, Pará, Brazil

Dalmanites meeki *see* Dalmanites (Odontochile) meeki

Dalmanites (Hausmannia) meeki *see* Dalmanites (Odontochile) meeki

Dalmanites (Odontochile) meeki Walcott

4330 $\frac{13384}{1}$ PLASTOTYPE Dalmanites meeki Walcott. Monograph of the United States geological survey. 1884. v. 8, Paleontology of the Eureka district, p. 207.

Dalmanites (Hausmannia) meeki Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 28.

Lower Devonic — Eureka district, Nev.

4331 $\frac{13384}{2}$ PLASTOTYPE Walcott. Monograph of the United States geological survey. 1884. v. 8, Paleontology of the Eureka district, pl. 17, fig. 5a, 5b.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 29, 30.

Lower Devonic — Eureka district, Nev.

Dalmanites micrurus Green (sp.)

4332 $\frac{13385}{1}$ TYPE Asaphus micrurus Green. Monograph of the trilobites of North America. 1832. p. 56, fig. 3; original of cast no. 19.

Helderbergian — The Helderberg, N. Y.
Albany Institute, donor

4333 $\frac{13385}{2}$ HYPOTYPE Asaphus pleuroptyx Green. Monograph of the trilobites of North America. 1832. p. 55.

Dalmania pleuroptyx Hall. Paleontology o New York. 1859. 3:359 (wood cut).

New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

4334 $\frac{13385}{3}$ HYPOTYPE Dalmania pleuroptyx Hall. Paleontology of New York. 1859. v. 3, pl. 74, fig. 1, 2.

Dalmanites micrurus Hall & Clarke. Paleontology of New York. 1888. v. 7 (mentioned on p. 29).

Helderbergian — Schoharie N. Y.
J. Gebhard purchase

Dalmanites (Coronura) myrmecophorus Green (sp.)

35 $\frac{13386}{1}$ HYPOTYPE Asaphus myrmecophorus Green. Supplement to the Monograph of the trilobites of North America. 1835. p. 16.

Dalmanites (Coronura) myrmecophorus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 13, fig. 12.

Onondaga limestone

Lime Rock, near Leroy, Genesee co. N. Y.
J. M. Clarke, coll. 1885

36 $\frac{13386}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 14, fig. 1.

Onondaga limestone Kingston, Ulster co. N. Y.
L. Bevier purchase

37 $\frac{13386}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 15.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 14, fig. 2.

Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

38 $\frac{13386}{4}$ HYPOTYPE: HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 13, fig. 16.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 14, fig. 3.

Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

39 $\frac{13386}{5}$ HYPOTYPE (Type of Conrad's species) Asaphus? acantho[p]leurus Conrad. Annual report on the New York state geological survey. 1841. p. 48.

Dalmanites (Coronura) myrmecophorus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 14, fig. 4-6.

Onondaga limestone Schoharie N. Y.

40 $\frac{13386}{6}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 15, fig. 1–3.

Onondaga limestone

Near Clarksville, Albany co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1878

4341 [illegible] HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7. pl. 13. fig. 4.
Onondaga limestone — Cazenovia N. Y.
J. M. Clarke purchase

Dalmanites nasutus *see* Dalmanites Probolium nasutus

Dalmanites Probolium nasutus Conrad (sp.)

4342 [illegible] HYPOTYPE Asaphus nasutus Conrad. Annual report of the New York state geological survey. 1841. p. 49.
Dalmanites nasutus Hall. Paleontology of New York. 1859. v. 3. pl. 75. fig. 2.
New Scotland beds — Schoharie N. Y.

4343 [illegible] HYPOTYPE Hall. Paleontology of New York. 1859. v. 3. pl. 76. fig. 1.
New Scotland beds — Schoharie N. Y.

4344 [illegible] HYPOTYPE Hall. Paleontology of New York. 1859. v. 3. pl. 76. fig. 2.
New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

4345 [illegible] HYPOTYPE Hall. Paleontology of New York. 1859. v. 3. pl. 76. fig. 3.
New Scotland beds — Schoharie N. Y.
J. Gebhard purchase

4346 [illegible] HYPOTYPE Hall. Paleontology of New York. 1859. v. 3. pl. 76. fig. 4–6.
New Scotland beds — Schoharie N. Y.

4347 [illegible] HYPOTYPE Hall. Paleontology of New York. 1859. v. 3. pl. 76. fig. 7, 8.
New Scotland beds — Schoharie N. Y.

Dalmanites paitúna *see* Dalmanites (Cryphaeus) paitúna

Dalmanites Cryphaeus paitúna Hartt & Rathbun

4348 [illegible] PLASTOTYPE Dalmania paitúna Hartt & Rathbun. Annals of the New York lyceum of natural history. 1875. [illegible].
Dalmanites paitúna Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9. pl. 1, fig. 13.
Ereré sandstone (Middle Devonic) — Ereré, Brazil

4349 $\frac{13388}{2}$ PLASTOTYPE Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. v. 9, pl. 1, fig. 14.
Ereré sandstone (Middle Devonic) Ereré, Brazil

Dalmanites (Hausmannia) phacoptyx
see Dalmanites (Odontochile) phacoptyx

Dalmanites (Odontochile) phacoptyx Hall & Clarke

4350 $\frac{13389}{1}$ TYPE: PLASTOTYPE Dalmanites (Hausmannia) phacoptyx Hall & Clarke. Paleontology of New York. 1888. 7:31, pl. 11A, fig. 23, 24.
Onondaga limestone North Cayuga Ont.
J. De Cew, coll. 1886

4351 $\frac{13389}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 26.
Onondaga limestone North Cayuga Ont.
J. De Cew, coll. 1866

4352 $\frac{13389}{3}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites (Odontochile) pleuroptyx Green (sp.)

4353 $\frac{13390}{1}$ TYPE Asaphus pleuroptyx Green. Monograph of the trilobites of North America. 1832. p. 55; original of cast no. 18.
New Scotland beds The Helderberg, N. Y.
Albany Institute, donor

4354 $\frac{13390}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 1.
Onondaga limestone
Lime Rock, near Leroy, Genesee co. N. Y.
Ward & Howell purchase

4355 $\frac{13390}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11A, fig. 3.
Helderbergian Near Clarksville, Albany co. N. Y.
J. M. Clarke purchase

4356 $\frac{13390}{4}$ HYPOTYPE Hall. Paleontology of New York. 1859 v. 3, pl. 74, fig. 7.
New Scotland beds Schoharie N. Y.

Dalmanites (Corycephalus) pygmaeus Hall & Clarke

4357 13321 TYPE Dalmanites (Corycephalus) pygmaeus Hall & Clarke. Paleontology of New York. 1888. 7:56, pl. 11, fig. 5, 6.
Onondaga limestone — Canandaigua N. Y.
J. M. Clarke purchase

4358 13321 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11, fig. 7, 8.
Onondaga limestone — Canandaigua N. Y.
J. M. Clarke purchase

Dalmanites (Odontocephalus) selenurus Eaton (sp.)

4359 13322 HYPOTYPE Asaphus selenurus Eaton. Geological textbook. 1832. p. 31.
Dalmanites (Odontocephalus) selenurus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 15.
Onondaga limestone — Schoharie county, N. Y.
J. Gebhard purchase

4360 13322 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 16, 17.
Onondaga limestone (drift) — Canandaigua N. Y.
J. M. Clarke, coll. 1885

4361 13322 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 18.
Onondaga limestone — Phelps, Ontario co. N. Y.
J. M. Clarke, coll. 1885

4362 13322 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 19.
Onondaga limestone (drift) — Canandaigua N. Y.
J. M. Clarke purchase

4363 13322 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 11B, fig. 21.
Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4364 13322 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 5, 6.
Onondaga limestone (drift) — Canandaigua N. Y.
J. M. Clarke purchase

3392/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v 7, pl. 12, fig. 7.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

3392/8 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 12, 13.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 8, 9.
Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

3392/9 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 12, fig. 1, 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 12, fig. 10, 11.
Onondaga limestone Schoharie N. Y.
J. Gebhard purchase

3392/10 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888 v. 7, pl. 12, fig. 12.
Onondaga limestone
Lime Rock, near Leroy, Genesee co. N. Y.
J. M. Clarke, coll. 1885

Dalmanites (Cryphina) serrulus Hall & Clarke

3393/1 TYPE Dalmanites (Hausmannia) concinnus var. serrula Hall & Clarke. Paleontology of New York. 1888. 7:30, pl. 11A, fig. 12.
Onondaga limestone North Cayuga, Ont.

Dalmanites (Synphoria) stemmatus Clarke

3394/1 TYPE Dalmanites sp. nov. A Clarke. American journal of science. 1892. 44:412.
Dalmanites (Synphoria) stemmatus Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 6.
Oriskanian Becraft mountain, Hudson N. Y.

3394/2 TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 7.
Oriskanian Becraft mountain, Hudson N. Y.

3394/3 TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 8, 9.
Oriskanian Becraft mountain, Hudson N. Y.

4373 $\frac{13304}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 10.
Oriskanian Becraft mountain, Hudson N. Y.

4374 $\frac{13304}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 11.
Oriskanian Becraft mountain, Hudson N. Y.

4375 $\frac{13304}{6}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 12.
Oriskanian Becraft mountain, Hudson N. Y.

4376 $\frac{13304}{7}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 13.
Oriskanian Becraft mountain, Hudson N. Y.

4377 $\frac{13304}{8}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 14.
Oriskanian Becraft mountain, Hudson N. Y.

4378 $\frac{13304}{9}$ TYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 15.
Oriskanian Becraft mountain, Hudson N. Y.

4379 $\frac{13304}{10}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 16.
Oriskanian Becraft mountain, Hudson N. Y.

4380 $\frac{13304}{11}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 1.
Oriskanian Becraft mountain, Hudson N. Y.

4381 $\frac{13304}{12}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 2.
Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites (Synphoria) stemmatus Clarke *var.* **convergens** Clarke

4382 $\frac{13305}{1}$ TYPE Dalmanites sp. nov. A var. Clarke. American journal of science. 1892. 44:412.
Dalmanites (Synphoria) stemmatus var. convergens Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.

4383 $\frac{13305}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl 2, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.

3905/3 TYPE; PLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

Dalmanites tridens *see* Dalmanites (Probolium) tridens

Dalmanites (Probolium) tridens Hall

3906/1 TYPE Dalmanites tridens Hall. Paleontology of New York. 1859. 3:361, pl. 75, fig. 3.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

3906/2 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 75, fig. 5.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

3906/3 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 75, fig. 6.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

Dalmanites vigilans *see* Dalmanites (Odontochile) vigilans

Dalmanites (Odontochile) vigilans Hall

3907/1 HYPOTYPE Dalmania vigilans Hall. Geological survey of Wisconsin; report of progress. 1861. p. 57.
Hall. 11th annual report of the Indiana state geologist. 1882. pl. 33, fig. 9.
Niagaran Waldron Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Dalmanites wetherilli *see* Dalmanites limulurus

Dicranurus hamatus *see* Ceratocephala (Dicranurus) hamata

Dipleura dekayi *see* Homalonotus (Dipleura) dekayi

DIPTEROCARIS Clarke

Dipterocaris pennae-daedali Clarke

4220/1 TYPE Dipterocaris pennae-daedali Clarke. American journal of science, ser. 3. 1883. 25:122, 123, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 24.

Portage (Naples) beds Canadice, Ontario co. N. Y.
J. M. Clarke purchase

Dipterocaris pes-cervae Clarke

4390 $\frac{13}{1}\frac{4}{2}\frac{21}{1}$ TYPE Dipterocaris pes-cervae Clarke. American journal of science, ser. 3. 1883. 25:123, fig. 4, 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 20, 21.

Chemung beds Dansville, Livingston co. N. Y.
J. M. Clarke purchase

4391 $\frac{13}{1}\frac{4}{2}\frac{21}{1}$ HYPOTYPE (?) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 22, 23.

Portage (Naples) beds Naples, Ontario co. N. Y.
J. M. Clarke purchase

Dipterocaris procne Clarke

4392 $\frac{13}{1}\frac{4}{2}\frac{22}{1}$ TYPE Dipterocaris procne Clarke. American journal of science, ser. 3. 1883. 25:122, fig. 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 25.

Portage (Naples) beds Canadice, Ontario co. N. Y.
J. M. Clarke purchase

4393 $\frac{13}{1}\frac{4}{2}\frac{22}{2}$ TYPE Clarke. American journal of science, ser. 3. 1883. 25:122, fig. 3.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 26, 27.

Chemung beds Haskinsville, Steuben co. N. Y.
J. M. Clarke purchase

Dithyrocaris neptuni *see* Mesothyra neptuni

Dithyrocaris neptuni *see* Mesothyra oceani

ECHINOCARIS Whitfield

Echinocaris condylepis Hall & Clarke

4394 $\frac{13}{1}\frac{4}{1}\frac{10}{1}$ TYPE Echinocaris condylepis Hall & Clarke. Paleontology of New York. 1888. 7:173, pl. 29, fig. 14, 15.

Chemung beds Belmont, Allegany co. N. Y.
A. Sherwood, coll. 1871

5 $\frac{10440}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 16, 17.

Chemung beds Belmont N. Y.
A. Sherwood, coll. 1871

Echinocaris multinodosa Whitfield

6 $\frac{13441}{1}$ PLASTOTYPE Echinocaris multinodosa Whitfield. American journal of science, ser. 3. 1880. v. 19: 38, pl. (circulated), fig. 8.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 18.

Erie shale Paine's creek, Leroy, Lake co. O.

7 $\frac{13}{2}\frac{441}{}$ PLASTOTYPE Whitfield. American journal of science, ser. 3. 1880. v. 19, pl. (circulated), fig. 16.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 19.

Erie shale Paine's creek, Leroy, Lake co. O.

Echinocaris punctata Hall

8 $\frac{13442}{1}$ TYPE Ceratiocaris armatus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 72, pl. 1, fig. 3.

Hamilton beds Menteth's point, Canandaigua lake, N.Y.
R. P. Whitfield and J. W. Hall, coll. 1858

9 $\frac{13}{2}\frac{442}{}$ HYPOTYPE Echinocaris punctata Hall & Clarke. Paleontology of New York. 1888. 7:166, pl. 27, fig. 10; pl. 28, fig. 4.

Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke, coll. 1886

0 $\frac{13442}{3}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 1, 2; pl. 29, fig. 6.

Hamilton beds Fabius, Onondaga co. N. Y.
G. B. Simpson, coll. 1863

1 $\frac{13442}{4}$ HYPOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 13.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 3.

Hamilton beds Pratt's falls, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

4402 $\frac{13}{8}\frac{4}{12}$ HYPOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 16.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 5.

Hamilton beds Pratt's falls, N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

4403 $\frac{13}{8}\frac{4}{12}$ TYPE Ceratiocaris armatus Hall. 16th annual report of the New York state cabinet of natural history. 1863. pl. 1, fig. 1, 2.

Hall. Illustrations of Devonian fossils. 1876. Crustacea. pl. 23. fig. 4, 5.

Echinocaris punctata Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 28, fig. 6, 7.

Hamilton beds Canandaigua lake, N. Y.

4404 $\frac{13}{7}\frac{4}{12}$ HYPOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 14, 15.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 1, 2.

Hamilton beds Pratt's falls, N. Y.

H. H. Smith and C. Van Deloo, coll. 1874

4405 $\frac{13}{8}\frac{4}{12}$ HYPOTYPE: HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 3.

Hamilton beds Delphi, Onondaga co. N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4406 $\frac{13}{9}\frac{4}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 4.

Hamilton beds Delphi N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4407 $\frac{13}{10}\frac{4}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 5.

Hamilton beds Delphi N. Y.

H. H. Smith and C. Van Deloo, coll. 1873

4408 $\frac{13}{11}\frac{4}{12}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 7.

Hamilton beds Norton's landing, Cayuga lake, N. Y.

H. H. Smith, coll. 1871

4409 $\frac{13}{12}\frac{4}{12}$ TYPE Ceratiocaris? punctatus Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 74, pl. 1, fig 8.

Ceratiocaris (Aristozoe) punctatus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 7.

Echinocaris punctata Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 8.

Hamilton beds

Ogden's or Kiddel's Ferry, Cayuga lake, N. Y.
C. A. White. coll. 1860

13442/13 TYPE (of mandible) Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 2, fig. 11.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 13, 15.

Hamilton beds Delphi N. Y.
H. H. Smith and C. Van Deloo, coll. 1873

13442/14 TYPE (of mandible) Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 2, fig. 9.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 14.

Hamilton beds Pratt's falls, N. Y.
H. H. Smith, coll. 1873

13442/15 TYPE (of mandible) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 16.

Hamilton beds Delphi N. Y.
H. H. Smith and C. Van Deloo, coll. 1873

13442/16 TYPE (of mandible) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 17.

Hamilton beds Delphi N. Y.
H. H. Smith and C. Van Deloo, coll. 1873

13442/17 TYPE (of mandible) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 18.

Hamilton beds Pratt's falls, N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

13442/18 TYPE (of mandible) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 19.

Hamilton beds Pratt's falls, N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

13442/19 TYPE (of mandible) Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 2, fig. 10.

Hamilton beds Delphi, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1873

Echinocaris pustulosa Whitfield

4417 $\frac{13}{1}\frac{443}{}$ PLASTOTYPE Echinocaris pustulosa Whitfield. American journal of science, ser. 3. 1880. v. 19, no. 109. p. 38, pl. (circulated), fig. 7.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 9, 10.
Erie shale Leroy, Lake co. O.

Echinocaris socialis Beecher

4418 $\frac{13}{1}\frac{444}{}$ PLASTOTYPE Echinocaris socialis Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 10, pl. 2, fig. 6.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 6.
Chemung beds Warren Pa.

4419 $\frac{13}{2}\frac{444}{}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 7.
Chemung beds Warren Pa.
F. A. Randall purchase

4420 $\frac{13}{3}\frac{444}{}$ PLASTOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 1, fig. 5
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 8.
Chemung beds Warren Pa.

4421 $\frac{13}{4}\frac{444}{}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 10.
Chemung beds Warren Pa.
F. A. Randall purchase

Echinocaris sublaevis Whitfield

4422 $\frac{13}{1}\frac{445}{}$ PLASTOTYPE Echinocaris sublaevis Whitfield. American journal of science, ser. 3. 1880. 19:36. pl. (circulated), fig. 4, 5.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 11, 12.
Erie shale Leroy, Lake co. O.

Echinocaris whitfieldi *see* Eleutherocaris whitfieldi

Echinocaris wrightianus *see* Stylonurus (?) (Echinocaris?) wrightianus

ELEUTHEROCARIS Clarke

Eleutherocaris whitfieldi Clarke

13460/1 TYPE[1]: PLASTOTYPE Echinocaris whitfieldi Clarke. United States geological survey bulletin 16. 1885. p. 45, pl. 2, fig. 3.

Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 20.

Portage (Naples) beds — Hatch hill, Naples, Ontario co. N. Y. J. M. Clarke purchase

13460/2 PLASTOTYPE Clarke. United States geological survey bulletin 16. 1885. pl. 2. fig. 4.

Clarke. Paleontology of New York. 1888. v. 7, pl. 29, fig. 21.

Portage (Naples) beds — Hatch hill, Naples N. Y. J. M. Clarke purchase

Elliptocephala asaphoides *see* Olenellus (Mesonacis) asaphoides

ELYMOCARIS Beecher

Elymocaris capsella *see* Rhinocaris capsella

Elymocaris siliqua Beecher

13480/1 PLASTOTYPE Elymocaris siliqua Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 13, pl. 2, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 5.

Chemung beds — Warren, Warren co. Pa.

13480/2 PLASTOTYPE Beecher. Second geological survey of Pennsylvania, PPP. 1884. pl. 2, fig. 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 6.

Chemung beds — Warren Pa.

EMMELEZOE Jones & Woodward

Emmelezoe decora Clarke

13500/1 TYPE Emmelezoe decora Clarke. Annual report of the New York state paleontologist. 1901. p. 95, pl. 2, fig. 4, 5.

Salina beds — Erie canal, 2 miles northwest of Pittsford, Monroe co. N. Y. C. J. Sarle purchase

[1]Counterpart of original.

4428 13⅛20 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 6.
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4429 13⅛20 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 7.
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4430 13⅛20 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 8.
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4431 13⅛20 TYPE PLASTOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 5
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

Annual report of the New York state paleontologist. 1901. pl. 2, fig. 11, pl. 3, fig. 1, 2.

[illegible] Clarke. Annual report of the New York state paleontologist. [illegible] pl. 2, fig. 12.
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

[illegible] Clarke. Annual report of the New York state paleontologist. [illegible] pl. 2, fig.
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

[illegible] pl. 2, fig. 4, pl. 3, fig. 3.

[illegible] Clarke. Annual report of the New York state paleontologist. [illegible] pl. 2, fig. 3
Salina beds — Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

[illegible]

4435 $\frac{13500}{9}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 3.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

4436 $\frac{13500}{10}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 3, fig. 4.
Salina beds Erie canal, 2 miles northwest of Pittsford N. Y.
C. J. Sarle purchase

Entomostracites crassicauda *see* Illaenus crassicauda ?

Equisetides wrightianus *see* Stylonurus (?) (Echinocaris ?) wrightianus

Equisetides (Stylonurus) wrightianus *see* Stylonurus (?) Echinocaris (?) wrightianus

ESTHERIA Rüppel

Estheria membranacea Pacht

4437 $\frac{13520}{1}$ HYPOTYPE Asmusia membranacea Pacht. Der Devonische Kalk Livlands. 1849. p. 44.
Estheria membranacea Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 1.
Oneonta-Catskill beds Felter's glen, Albany co. N. Y.
C. S. Prosser, coll. 1895

4438 $\frac{13520}{2}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 2.
Oneonta-Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895

4439 $\frac{13520}{3}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 3.
Oneonta–Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895

4440 $\frac{13520}{4}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 4.
Oneonta–Catskill beds Felter's glen N. Y.
C. S. Prosser, coll. 1895

Estheria ortoni Clarke

4441 12¼11 TYPE Estheria ortoni Clarke. Annual report of the New York state paleonto ogist. 1901. p. 109. pl. 4, fig. 5.
Lower Barren Coal Measures — Carrollton O.
J. M. Clarke, donor

4442 12¼11 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4. fig. 6.
Lower Barren Coal Measures — Carrollton O.
J. M. Clarke, donor

4443 12¼11 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4. fig. 7.
Lower Barren Coal Measures — Carrollton O.
J. M. Clarke, donor

4444 12¼11 TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4. fig. 8.
Lower Barren Coal Measures — Carrollton O.
J. M. Clarke, donor

Estheria pelex Clarke

4445 [illegible] TYPE [illegible] Clarke. American journal of [illegible] 1882. [illegible]
[illegible] Clarke. [illegible] New York. 1888 [illegible]
[illegible] — [illegible]
J. M. Clarke, donor

[illegible]

[illegible] Supplement. New [illegible]
[illegible] — Rosedale, [illegible]
[illegible] — [illegible] N. Y.
[illegible] Supplement, 1902
[illegible] New York state museum bulletin 49
[illegible]
[illegible] — [illegible] N. Y.
[illegible] Supplement, 1902

Eurychilina dianthus Ruedemann

48 $\frac{13541}{1}$ TYPE Eurychilina dianthus Ruedemann. New York state museum bulletin 49. 1901. p. 78, pl. 5, fig. 1.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of Eurychilina obliqua. New York state museum bulletin 49, pl. 5, fig. 10–12.

49 $\frac{13541}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 2.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of Leperditia resplendens. New York state museum bulletin 49, pl. 5, fig. 24.

50 $\frac{13541}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 8, 9.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina obliqua Ruedemann

51 $\frac{13542}{1}$ TYPE Eurychilina obliqua Ruedemann. New York state museum bulletin 49. 1901. p. 79, pl. 5, fig. 10–12.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of Eurychilina dianthus. New York state museum bulletin 49, pl. 5, fig. 1.

Eurychilina reticulata Ulrich

52 $\frac{13543}{1}$ HYPOTYPE Eurychilina reticulata Ulrich. Contributions to Canadian micro-paleontology, pt 2. 1889. p. 52.
Jones. Quarterly journal of the Geological society of London. 1890. v. 46, pl. 20, fig. 13a, 13b (identification not correct).
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

53 $\frac{13543}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 3.
Trenton conglomerate Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina (?) solida Ruedemann

4454 $\frac{13}{1}\frac{1}{1}\frac{1}{1}$ TYPE Eurychilina(?) solida Ruedemann. New York state museum bulletin 49. 1901. p. 77, pl. 5, fig. 18.
Trenton conglomerate — Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

Eurychilina subradiata Ulrich *var.* rensselaerica Ruedemann

4455 $\frac{13}{1}\frac{1}{1}\frac{1}{2}$ TYPE Eurychilina subradiata Ulrich var. rensselaerica Ruedemann. New York state museum bulletin 49. 1901. p 77, pl. 5, fig. 4, 5.
Trenton conglomerate — Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

4456 $\frac{13}{3}\frac{1}{1}\frac{1}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 6.
Trenton conglomerate — Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of pl. 5, fig. 13.

4457 $\frac{13}{3}\frac{1}{1}\frac{1}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 7.
Trenton conglomerate — Rysedorph hill N. Y.
R. Ruedemann, coll. 1900

4458 $\frac{13}{4}\frac{1}{1}\frac{1}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 13.
Trenton conglomerate — Rysedorph hill N. Y.
R. Ruedemann, coll. 1900
On slab with type of pl. 5, fig. 6.

EURYPTERUS De Kay

Eurypterus approximatus Hall & Clarke

4459 $\frac{13}{1}\frac{2}{1}\frac{0}{0}$ PLASTOTYPE Eurypterus approximatus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 6.
Waverly beds — 3 miles south of Warren, Warren co. Pa.

Eurypterus beecheri Hall

4460 $\frac{13}{1}\frac{2}{1}\frac{0}{1}$ PLASTOTYPE Eurypterus beecheri Hall. Second geological survey of Pennsylvania, PPP. 1884. p. 39, pl. 3, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 5.
Chemung b — Warren Pa.

Eurypterus dekayi Hall

3562/1 TYPE Eurypterus dekayi Hall. Paleontology of New York. 1859. 3:411*, pl. 82, fig. 1.
Salina waterlime — Black Rock, Erie co. N. Y.
J. Gebhard purchase

Eurypterus pachycheirus Hall

3563/1 TYPE Eurypterus pachycheirus Hall. Paleontology of New York. 1859. 3:412*, pl. 82*, fig. 1, 1a.
Salina waterlime
Near Williamsville, Erie co. N. Y.
J. Gebhard purchase

3563/2 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 82*, fig. 3.
Salina waterlime — Buffalo N. Y.
J. Gebhard purchase

Eurypterus prominens Hall

3564/1 PLASTOTYPE Eurypterus prominens Hall. Proceedings of the American association for the advancement of science. 1884. 33:420.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 27, fig. 3, 4.
Clinton beds — Northern part of Cayuga county, N. Y.

Eurypterus remipes De Kay

3565/1 HYPOTYPE Eurypterus remipes De Kay. Annals of the New York lyceum of natural history. 1825. 1:375.
Clarke. Eastman's Zittel. Textbook of paleontology. 1900. 1:676, fig. 1420.
Salina waterlime — Buffalo N. Y.

HOMALONOTUS Koenig

Homalonotus (Calymmene) acanthurus Clarke

3580/1 PLASTOTYPE Homalonotus (Calymene) acanthurus Clarke. Archivos do museu nacional do Rio de Janeiro. 1890. 9:11, pl. 1, fig. 9, 10.
Maecurú sandstone (Lower Devonic)
Maecurú, Pará, Brazil

Homalonotus (Dipleura) dekayi Green

4467 $\frac{13581}{1}$ PLASTOTYPE Dipleura dekayi Green. Monograph of the trilobites of North America. 1832. p. 79, cast no. 31, pl., fig. 9.
Hamilton beds Northumberland Pa.
Albany Institute, donor

4468 $\frac{13581}{2}$ PLASTOTYPE Nuttainia sparsa (Eaton) Green. Monograph of the trilobites of North America. 1832. p. 89, cast no. 35.
Hamilton beds Near Coeymans, Albany co. N. Y.
Albany Institute, donor

4469 $\frac{13581}{3}$ TYPE (of description) Dipleura dekayi Green. Monograph of the trilobites of North America. 1832. p. 79.
Hamilton beds Madison county, N. Y.
Albany Institute, donor (Dewitt Clinton collection)

4470 $\frac{13581}{4}$ TYPE (of description) Green. Monograph of the trilobites of North America. 1832. p. 80.
Hamilton beds Cazenovia, Madison co. N. Y.
Albany Institute, donor

4471 $\frac{13581}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2. fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 1.
Hamilton beds Madison county, N. Y.

4472 $\frac{13581}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 2.
Hamilton beds
Ladd's quarry, near Sherburne, Chenango co. N. Y.
J. Gebhard purchase

4473 $\frac{13581}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 6.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 6.
Hamilton beds Madison or Otsego county, N. Y.
J. Gebhard purchase

4474 $\frac{13581}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 7.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 7.
Hamilton beds Madison county, N. Y.

13581/9 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 8, 9.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 8, 9.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase

13581/10 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 11.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 11.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

13581/11 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 2, fig. 12.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 2, fig. 12.
Hamilton beds Cazenovia, Madison co. N. Y.
J. Gebhard purchase

13581/12 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 3, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 3, fig. 1.
Hamilton beds Bellona, Yates co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

13581/13 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 3, fig. 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 3, fig. 2.
Hamilton beds Near Leonardsville, Madison co. N. Y.
J. Gebhard purchase

13581/14 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 3, fig. 3.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 3, fig. 3.
Hamilton beds Madison county, N. Y.
J. Gebhard purchase

4481 $\frac{13881}{15}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 3, fig. 4.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 3, fig. 4.
Hamilton beds — Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

4482 $\frac{13881}{16}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 3, fig. 5.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 3, fig. 5.
Hamilton beds — Madison county, N. Y.
J. Gebhard purchase

4483 $\frac{13881}{17}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 4, fig. 3–5.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 4, fig. 1–3.
Hamilton beds — Madison county, N. Y.
J. Gebhard purchase

4484 $\frac{13881}{18}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 4, fig. 6.
Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke purchase

4485 [illegible] HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 4, fig. 7.
Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke purchase

4486 [illegible] HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 5, fig. 1.
Hamilton beds — Pratt's falls, Onondaga co. N. Y.
C. Van Deloo and H. H. Smith, coll. 1873

4487 [illegible] HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 5, fig. 2.
Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke purchase

[illegible] delphinocephalus see
[illegible] Trimerus delphinocephalus

Homalonotus Trimerus delphinocephalus Green

4488 [illegible] TYPE [illegible] delphinocephalus Green.
[illegible] of North America. 1832.
[illegible]
[illegible] — Lorse, banks of
[illegible] Lake Ontario, Monroe co. N. Y.
Albany Institute, donor

13582/2 TYPE (of description) Green. Monograph of the trilobites of North America. 1832. p. 82.
Lockport limestone Loose, banks of Lake Ontario, Monroe county, N. Y.
Albany Institute, donor

13582/3 HYPOTYPE Homalonotus delphinocephalus Hall. Paleontology of New York. 1852. v. 2, pl. 31, fig. 5a.
Clinton beds Mohawk, Herkimer co. N. Y.

13582/4 HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 31, fig. 5b.
Clinton beds Mohawk N. Y.

13582/5 HYPOTYPE Hall. Paleontology of New York. 1852. v. 2, pl. 68, fig. 9.
Lockport limestone Lockport N. Y.

Homalonotus major Whitfield

13583/1 HYPOTYPE Homalonotus major Whitfield. American museum of natural history bulletin. 1885. v. 1, no. 6, p. 193.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 5A, fig. 1.
Oriskanian Bank of 4th Binnewater, Rosendale N. Y.
L. Bevier, exchange

Homalonotus oiara Hartt & Rathbun

13584/1 PLASTOTYPE Homalonotus oiara Hartt & Rathbun. Annals of the New York lyceum of natural history. 1876. 11:114.
Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:5, pl. 1, fig. 5.
Ereré sandstone (Middle Devonic)
Ereré, Pará, Brazil

Homalonotus trentonensis Simpson

13585/1 PLASTOTYPE Homalonotus trentonensis Simpson. Transactions of the American philosophical society. 1890. 16:460, fig. 31, no. 1.
Trenton limestone (?) Reedsville, Mifflin co. Pa.

13585/2 PLASTOTYPE Simpson. Transactions of the American philosophical society. 1890. v. 16, fig. 31, no. 4.
Trenton limestone (?) Reedsville Pa.

4497 13§88 PLASTOTYPE Simpson. Transactions of the American philosophical society. 1890. v. 16, fig. 31, no. 5.
Trenton limestone (?) Reedsville Pa.
Homalonotus vanuxemi *see* Homalonotus (Trimerus) vanuxemi

Homalonotus (Trimerus) vanuxemi Hall

4498 13§86 HYPOTYPE Homalonotus vanuxemi Hall. Paleontology of New York. 1859. 3:352.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 5B, fig. 1, 2.
New Scotland beds Kingston N. Y.
L. Bevier, exchange

ILLAENUS Dalman

Illaenus arcturus Hall

4499 13§[illegible] TYPE Illaenus arcturus Hall. Paleontology of New York. 1843. 1:[illegible] pl. 2bis, fig. 12.
Chazy limestone Chazy, Clinton co. N. Y.

Illaenus armatus Hall

4500 [illegible] SYNTYPE [illegible] Illaenus armatus Hall. 20th annual [illegible] New York state cabinet of natural history. [illegible]
[illegible] 1st annual report on the [illegible] state geologist. [illegible]
[illegible] [illegible] Ind.
[illegible] [illegible] 1858
[illegible] [illegible]
[illegible] [illegible] Bluntia
[illegible] [illegible]
[illegible] [illegible] Upsal.
[illegible] [illegible]
[illegible] [illegible] Paleontology of
[illegible] [illegible]
[illegible] [illegible] N. Y.
[illegible] [illegible]
[illegible] [illegible] Illinois
[illegible] [illegible]
[illegible] [illegible] Illinois rep-
[illegible] [illegible]

ISOCHILINA Jones

Isochilina armata Walcott *var.* **pygmaea** Ruedemann

13620/1 TYPE Isochilina armata Walcott var. pygmaea Ruedemann. New York state museum bulletin 49. 1901. p. 72, pl. 7, fig. 19.
Trenton conglomerate — Rysedorph hill, Rensselaer co. N. Y. R. Ruedemann, coll. 1900

13620/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 20.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

13620/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 21.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

13620/4 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 22.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

13620/5 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 23.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

13620/6 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 24.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

13620/7 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 25.
Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

ISOTELUS De Kay

Isotelus canalis Conrad

13640/1 TYPE Isotelus canalis (Conrad in ms.) Hall. Paleontology of New York. 1847. 1:25, pl. 4 bis, fig. 17.
Chazy limestone — Chazy, Clinton co. N. Y.

Isotelus gigas De Kay

4510 13[41] PLASTOTYPE Isotelus gigas De Kay. Annals of the New York lyceum of natural history. 1824. 1:124, pl. 13, fig. 1.

Trenton limestone — Trenton Falls, Oneida co. N. Y.
Albany Institute, donor

4511 13[41] HYPOTYPE: HYPOPLASTOTYPE Clarke. Geological survey of Minnesota. 1897. v. 3, pt 2 of the final report: Paleontology, p. 706, fig. 8.

Lorraine sandy shales — Drift, central New York

Isotelus gigas *see* Isotelus jacobus

Isotelus jacobus Clarke

4512 [illegible] TYPE Isotelus gigas (De Kay) Hall. Paleontology of New York. 1847. 1:231, pl. 61, fig. 3g.

Isotelus jacobus Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report: Paleontology, p. 706.

Trenton limestone — Crown Point, Essex co. N. Y.
Albany Institute, donor

Isotelus [illegible] maximus Locke

[illegible] Isotelus [illegible] maximus Locke. New York [illegible]

[illegible] N. Y.

[illegible] Isotelus [illegible]

[illegible] N. Y.

[illegible] New York

[illegible] N. Y.

[illegible] 1900

Leperditia gibbera var. scalaris *see* Leperditia scalaris

Leperditia parasitica *see* Beyrichia parasitica

Leperditia resplendens Ruedemann

13661/1 TYPE Leperditia resplendens Ruedemann. New York state museum bulletin 49. 1901. p. 71, pl. 5, fig. 21–23.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13661/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 24.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

On slab with type of Eurychilina dianthus, bulletin 49, pl. 5, fig. 2.

13661/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 25.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13661/4 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 5, fig. 26, 27.

Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Leperditia scalaris Jones

13662/1 HYPOTYPE Leperditia gibbera var. scalaris Jones. Annals and magazine of natural history, ser. 3. 1858. 4:250.

Leperditia scalaris Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6a.

Manlius limestone — Erie county, N. Y.
A. W. Grabau, donor

13662/2 HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6b.

Manlius limestone — Erie county, N. Y.
A. W. Grabau, donor

13662/3 HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6c.

Manlius limestone — Erie county, N. Y.
A. W. Grabau, donor

4523 $\frac{13682}{4}$ HYPOTYPE Grabau. Bulletin of the Geological society of America. 1900. v. 11, pl. 22, fig. 6d.
Manlius limestone — Erie county, N. Y.
A. W. Grabau, donor

Leperditia troyensis *see* Aristozoe troyensis

LEPIDOCOLEUS Faber

Lepidocoleus jamesi Hall & Whitfield (sp.)

4524 $\frac{13680}{1}$ HYPOTYPE Plumulites jamesi Hall & Whitfield. Geological survey of Ohio. 1875. Paleontology, v. 2, pt 2, p. 106.
Lepidocoleus jamesi Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 10.
Trenton limestone — Trenton Falls, Oneida co. N. Y.
R. Ruedemann, coll. 1900

4525 $\frac{13680}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 11.
Trenton shale — Port Schuyler, Albany co. N. Y.
R. Ruedemann, coll. 1899

4526 $\frac{13680}{3}$ HYPOTYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 12.
Lower Utica shale — Mechanicville, Saratoga co. N. Y.
R. Ruedemann, coll. 1900

4527 $\frac{13680}{4}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 16, 17.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4528 $\frac{13680}{5}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 18, 19.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

LICHAS Dalman

Lichas (Conolichas?) sp.?

4529 $\frac{13700}{1}$ TYPE Lichas pustulosus Hall. Paleontology of New York. 1859. 3:336, pl. 78, fig. 7.
Lichas (Conolichas?) sp.? Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 9.
New Scotland beds — Schoharie, Schoharie co. N. Y.
J. Gebhard purchase

...s) consanguineus Clarke

...sanguineus Clarke. Geology ...pt 2 of the final report; Pal-

...bush, near Clarksville, Albany co. N. Y. M. Clarke, donor

... Clarke

...tusus Hall & Clarke. ...888. 7:83, pl. 19B, fig. 3. ...Canandaigua, Ontario co. N. Y. J. M. Clarke purchase

... Paleontology of New York. 1888. ...6.

...mestone — Near Clarksville N. Y. J. W. Hall, coll. 1877

...s (Conolichas) cornutus Clarke

... Lichas (Conolichas) cornutus Clarke. ...eology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 749, fig. 72, 73.

Middle Trenton limestone — Trenton Falls N. Y.

Lichas (Ceratolichas) dracon Hall & Clarke

13704/1 TYPE Acidaspis sp. n.? Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 2, 3.

Lichas (Ceratolichas) dracon Hall & Clarke. Paleontology of New York. 1888. 7:85, pl. 19B, fig. 14, 15.

Onondaga limestone — Schoharie, Schoharie co. N. Y. J. Gebhard purchase

13704/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19 B, fig. 16, 17.

Onondaga limestone — Schoharie N. Y. J. Gebhard purchase

13704/3 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19 B, fig. 18, 18a.

Onondaga limestone — Leroy, Genesee co. N. Y. J. M. Clarke, coll. 1886

Lichas eriopis *see* Lichas (Arges) eriopis

Lichas (Arges) eriopis Hall

4537 $\frac{13705}{1}$ TYPE Lichas eriopis Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 226.

Acidaspis (Terataspis) eriopis Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 4–7.

Lichas (Conolichas) eriopis Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 2–5.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4538 $\frac{13705}{2}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 8.

Onondaga limestone (drift) — Canandaigua N. Y.

4539 $\frac{13705}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 9.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4540 $\frac{13705}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 12.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 11.

Onondaga limestone — Schoharie N. Y.
J. Gebhard purchase

4541 $\frac{13705}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19A, fig. 13–16.

Onondaga limestone (chert in drift) — Canandaigua N. Y.
J. M. Clarke purchase

Lichas grandis *see* Lichas (Terataspis) grandis

Lichas (Terataspis) grandis Hall

4542 $\frac{13706}{1}$ TYPE Lichas grandis Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 110.

Acidaspis (Terataspis) grandis Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 17, fig. 1, 2.

Lichas (Terataspis) grandis Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 17, fig. 2, 3.

Schoharie grit — Schoharie N. Y.
C. Van Deloo, coll. 1862

4543 $\frac{13706}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 17, fig. 4, 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 17, fig. 4, 5.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4544 $\frac{13706}{3}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 1.

Schoharie grit — Near Clarksville, Albany co. N. Y.
C. Van Deloo, coll. 1862

4545 $\frac{13706}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 2.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4546 $\frac{13706}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 18, fig. 4.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 4.

Schoharie grit — Near Clarksville N. Y.
J. Gebhard purchase

4547 $\frac{13706}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 18, fig. 3.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 5.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4548 $\frac{13706}{7}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 6.

Schoharie grit — Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

4549 $\frac{13706}{8}$ TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 7.

Schoharie grit — Knox N. Y.
C. Van Deloo, coll. 1862

Lichas (Ceratolichas) gryps Hall & Clarke

4550 13[illegible] TYPE Acidaspis sp. n.? Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 1.

Lichas (Ceratolichas) gryps Hall & Clarke. Paleontology of New York. 1888. 7:84, pl. 19B, fig. 7, 8.

Onondaga limestone — Schoharie N. Y.

J. Gebhard purchase

4551 13[illegible] TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 9–11.

Onondaga limestone (drift) — Canandaigua N. Y.

J. M. Clarke purchase

4552 13[illegible] TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 12–13.

Onondaga limestone — Canandaigua N. Y.

J. M. Clarke, coll. 1886

Lichas (Arges) hispidus Hall & Clarke

4553 [illegible] TYPE Acidaspis (Terataspis) eriopis Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 8 a.

Lichas (Ceratolichas) hispidus Hall & Clarke. Paleontology of New York. 1888. 7:77, pl. 19A, fig. 1–6.

Schoharie grit — Schoharie N. Y.

J. Gebhard purchase

4554 Hall & Clarke. Paleontology of New York. 1888.

[illegible] — [illegible] N. Y.

[illegible] coll. 1877

[illegible] Lichas

Lichas (Deiracephalus) pustulosus Hall & Clarke

[illegible] Hall

New York 1888 v.86,

[illegible] Schoharie [illegible] N.Y.

[illegible] purchase

56 13709/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 20.
Coralline (Cobleskill) limestone Schoharie county, N.Y.

57 13709/3 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19B, fig. 21.
Coralline (Cobleskill) limestone Schoharie county, N.Y.
J. Gebhard purchase

Lichas pustulosus *see* Lichas (Conolichas?) sp.?

Lichas pustulosus *see* Lichas (Conolichas) pustulosus

Lichas (Conolichas) pustulosus Hall

58 13710/1 TYPE Lichas pustulosus Hall. Paleontology of New York. 1859. 3:366, pl. 77, fig. 9, 10.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

59 13710/2 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 77, fig. 11.
Helderbergian Schoharie N. Y.

60 13710/3 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 2.
Helderbergian Schoharie N. Y.

61 13710/4 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 3.
Helderbergian Schoharie N. Y.

62 13710/5 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 4.
Helderbergian Schoharie N. Y.

63 13710/6 TYPE: PLASTOTYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 5.
Helderbergian Schoharie N. Y.

64 13710/7 TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 78, fig. 6.
Helderbergian Schoharie N. Y.

65 13710/8 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 19, fig. 13.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

4566 $\frac{13710}{9}$ HYPOTYPE; HYPOPLASTOTYPE Lichas (Conolichas) pustulosus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 8.

New Scotland beds Near Clarksville, Albany co. N. Y.

4567 $\frac{13710}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 10.

Helderbergian Schoharie county, N. Y.
J. Gebhard purchase

4568 $\frac{13710}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7. pl. 19, fig. 11.

Helderbergian Schoharie county, N. Y.
J. Gebhard purchase

MACRONOTELLA Ulrich

Macronotella fragaria Ruedemann

4569 $\frac{13720}{1}$ TYPE Macronotella fragaria Ruedemann. New York state museum bulletin 49. 1901. p. 85, pl. 6, fig. 3–5.

Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Macronotella ulrichi Ruedemann

4570 $\frac{13721}{1}$ TYPE Macronotella ulrichi Ruedemann. New York state museum bulletin 49. 1901. p. 83, pl. 6, fig. 6–8.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4571 $\frac{13721}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 9.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4572 $\frac{13721}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 10–12; pl. 7, fig. 1.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4573 $\frac{13721}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 13–15.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13721/6 TYPE Ruedemann. New York state museum bulletin 49 1901. pl. 6, fig. 16.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

MESOTHYRA Hall & Clarke

Mesothyra neptuni Hall

13740/1 TYPE: PLASTOTYPE Dithyrocaris neptuni Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 75, pl. 1, fig. 9.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 6.

Mesothyra neptuni Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 32, fig. 7; pl. 33, fig. 1.

Hamilton beds Plainfield, Otsego co. N. Y.
J. Gebhard purchase

Mesothyra oceani Hall & Clarke

13741/1 TYPE Mesothyra oceani Hall & Clarke. Paleontology of New York. 1888. 7:187, pl. 32, fig. 1, 2, 4, 6; pl. 33, fig. 4.

Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/2 TYPE Dithyrocaris neptuni Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 22, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 32, fig. 3; pl. 33, fig. 5.

Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/3 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 33, fig. 6.

Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/4 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 33, fig. 7.

Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

On slab with type of pl. 34, fig. 1.

4566 $\frac{13710}{9}$ HYPOTYPE; HYPOPLASTOTYPE Lichas (Conolichas) pustulosus Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 8.

New Scotland beds Near Clarksville, Albany co. N. Y.

4567 $\frac{13710}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 19, fig. 10.

Helderbergian Schoharie county, N. Y.
J. Gebhard purchase

4568 $\frac{13710}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7. pl. 19, fig. 11.

Helderbergian Schoharie county, N. Y.
J. Gebhard purchase

MACRONOTELLA Ulrich

Macronotella fragaria Ruedemann

4569 $\frac{13720}{1}$ TYPE Macronotella fragaria Ruedemann. New York state museum bulletin 49. 1901. p. 85, pl. 6, fig. 3–5.

Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

Macronotella ulrichi Ruedemann

4570 $\frac{13721}{1}$ TYPE Macronotella ulrichi Ruedemann. New York state museum bulletin 49. 1901. p. 83, pl. 6, fig. 6–8.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4571 $\frac{13721}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 9.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4572 $\frac{13721}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 10–12; pl. 7, fig. 1.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4573 $\frac{13721}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 6, fig. 13–15.

Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

13721/5 TYPE Ruedemann. New York state museum bulletin 49 1901. pl. 6, fig. 16.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

MESOTHYRA Hall & Clarke

Mesothyra neptuni Hall

13740/1 TYPE: PLASTOTYPE Dithyrocaris neptuni Hall. 16th annual report of the New York state cabinet of natural history. 1863. p. 75, pl. 1, fig. 9.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 6.
Mesothyra neptuni Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 32, fig. 7; pl. 33, fig. 1.
Hamilton beds Plainfield, Otsego co. N. Y.
J. Gebhard purchase

Mesothyra oceani Hall & Clarke

13741/1 TYPE Mesothyra oceani Hall & Clarke. Paleontology of New York. 1888. 7:187, pl. 32, fig. 1, 2, 4, 6; pl. 33, fig. 4.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/2 TYPE Dithyrocaris neptuni Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 22, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 32, fig. 3; pl. 33, fig. 5.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/3 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 33, fig. 6.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

13741/4 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 23, fig. 2.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 33, fig. 7.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870
On slab with type of pl. 34, fig. 1.

4580 $\frac{13741}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876
Crustacea, pl. 22, fig. 3.
Hall & Clarke. Paleontology of New York. 1888
v. 7, pl. 34, fig. 1.
Portage (Ithaca) beds Ithaca N. Y
J. W. Hall and G. B. Simpson, coll. 1870
On slab with type of pl. 33, fig. 7.

4581 $\frac{13741}{6}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 22, fig. 2.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 34, fig. 2.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

4582 $\frac{13741}{7}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 22, fig. 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 34, fig. 3.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

4583 $\frac{13741}{8}$ TYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 22, fig. 4.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 32, fig. 5; pl. 34, fig. 4.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

4584 $\frac{13741}{9}$ TYPE Hall. Illustrations of Devonian fossils 1876.
Crustacea, pl. 23, fig. 3.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 34, fig. 5.
Portage (Ithaca) beds Ithaca N. Y.
J. W. Hall and G. B. Simpson, coll. 1870

Mesothyra spumaea Hall & Clarke

4585 $\frac{13742}{1}$ TYPE Mesothyra spumaea Hall & Clarke. Paleontology of New York. 1888. 7:193, pl. 32, fig. 8, 9.
Hamilton beds Delphi, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

4586 $\frac{13742}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 33, fig. 2.
Hamilton beds Pratt's falls, Onondaga co. N. Y.
H. H. Smith and C. Van Deloo, coll. 1874

Mesothyra (Dithyrocaris?) veneris *see* Rhinocaris veneris

MICRODISCUS Emmons

Microdiscus meeki Ford

13743/1 TYPE Microdiscus meeki Ford. American journal of science and arts, ser. 3. 1876. 11:371 (not figured; original of description).

Walcott. United States geological survey bulletin 30. 1886. pl. 16, fig. 4.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 81, fig. 3.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

Microdiscus speciosus Ford

13744/1 TYPE Microdiscus speciosus Ford. American journal of science and arts, ser. 3. 1873. 6:137, fig. 2a.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

13744/2 TYPE Ford. American journal of science and arts, ser. 3. 1873. 6:137, fig. 2b.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

13744/3 HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. 13:141 (not figured).

Walcott. United States geological survey bulletin 30. 1886. pl. 16, fig. 3, 3a.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

13744/4 HYPOTYPE Walcott. United States geological survey bulletin 30. 1886. pl. 16, fig. 3b.

Lower Cambric — Troy N. Y.

S. W. Ford purchase

MOOREA Jones & Kirkby

Moorea kirkbyi Jones

13760/1 TYPE Moorea kirkbyi Jones. Quarterly journal of the geological society of London. 1890. 46:542, pl. 20, fig. 9a, 9b.

Onondaga limestone (drift) — Canandaigua, Ontario co. N. Y.

J. M. Clarke purchase

Nuttania concentrica *see* Trinucleus concentricus

Nuttania sparsa *see* Homalonotus (Dipleura) dekayi

OCTONARIA Jones

Octonaria linnarssoni Jones

4593 12¼80 TYPE Octonaria linnarssoni Jones. Quarterly journal of the geological society of London. 1890. 46:541 pl. 20, fig. 7a, 7b.

Hamilton beds — Clark county, Ind
J. M. Clarke purchase

OLENELLUS Hall

Olenellus asaphoides *see* Olenellus (Mesonacis) asaphoides

Olenellus (Mesonacis) asaphoides Emmons (sp.)

4594 12¼00 HYPOTYPE Elliptocephala asaphoides Emmons. Taconic system. 1844. p. 21.

Olenellus asaphoides Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 1a, 1b.

Lower Cambric — Troy N. Y.
S. W. Ford purchase

4595 12¼00 HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 2a, 2b.

Walcott. United States geological survey bulletin 30. 1886. p. 20, fig. 3.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 86, fig. 3.

Lower Cambric — Troy N. Y.
S. W. Ford purchase

4596 12¼00 HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 3a, 3b.

Lower Cambric — Troy N. Y.
S. W. Ford purchase

4597 12¼00 HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 4a, 4b.

Lower Cambric — Troy N. Y.
S. W. Ford purchase

4598 $\frac{13800}{6}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 5; 1881. 22:251, fig. 3.
Walcott. United States geological survey bulletin 30. 1886. pl. 17, fig. 7; pl. 20, fig. 3b.
Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 88, fig. 1d.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4599 $\frac{13800}{6}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 6.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4600 $\frac{13800}{7}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 7.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4601 $\frac{13800}{8}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 8.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4602 $\frac{13800}{9}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 9.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4603 $\frac{13800}{10}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1877. v. 13, pl. 4, fig. 10a, 10b.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4604 $\frac{13800}{11}$ HYPOTYPE Ford. American journal of science and arts, ser. 3. 1881. 22:251, fig. 1.
Walcott. United States geological survey bulletin 30. 1886. pl. 17, fig. 8; pl. 20, fig. 3a.
Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 86, fig. 3a; pl. 88, fig. 1b.
Lower Cambric Troy N. Y.
S. W. Ford purchase

4605 $\frac{13800}{12}$ HYPOTYPE Ford. American journal of science and arts ser. 3. 1881. 22:251, fig. 2.

Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 88, fig. 1c.

Lower Cambric Troy N. Y

S. W. Ford purchase

PALAEOCREUSIA Clarke

Palaeocreusia devonica Clarke

4606 $\frac{13820}{1}$ TYPE Palaeocreusia devonica Clarke. Paleontology of New York. 1888. 7:210, pl. 36, fig. 24–26.

Onondaga limestone Leroy, Genesee co. N. Y.

C. D. Walcott and C. Van Deloo, coll. 1878

PALAEOPALAEMON Whitfield

Palaeopalaemon newberryi Whitfield

4607 $\frac{13840}{1}$ PLASTOTYPE Palaeopalaemon newberryi Whitfield. American journal of science, ser. 3. 1880. v. 19, p. 41, pl. (circulated) fig. 12.

Whitfield. Paleontology of Ohio. 1893. v. 7, pl. 8, fig. 19–21.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 30, fig. 20–23.

Erie shale Leroy, Lake co. O.

PEPHRICARIS Clarke

Pephricaris horripilata Clarke

4608 $\frac{13860}{1}$ TYPE Pephricaris horripilata Clarke. 15th annual report of the New York state geologist. 1898. 1:731, fig. 1; p. 732, fig. 2.

Chemung sandstone Alfred N. Y.

A. R. Crandall, exchange

PHACOPS Emmrich

Phacops anceps Clarke

4609 $\frac{13880}{1}$ TYPE Phacops anceps Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:16, pl. 1, fig. 3.

Onondaga limestone Cayuga Ont.

C. D. Walcott, coll. 1878

Phacops (Acaste) cf. anceps *see* Phacops [illegible]

Phacops bufo (= rana) Green (sp.)

3881/1 PLASTOTYPE Calymene bufo Green. Monograph of the trilobites of North America. 1832. p. 41, cast no. 10.

Phacops bufo Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 8, fig. 24, 25.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8, fig. 25, 26.

Hamilton beds (?) New Jersey

Albany Institute, donor

Phacops correlator Clarke

3882/1 TYPE: PLASTOTYPE Phacops (Acaste) cf. anceps Clarke. American journal of science. 1892. 44:412.

Phacops correlator Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 9.

Oriskanian Becraft mountain, Hudson N. Y.

Phacops cristata Hall

3883/1 TYPE Phacops cristata Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 67.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 1, 2.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 1, 2.

Schoharie grit Knox, Albany co. N. Y.

C. Van Deloo, coll. 1862

3883/2 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 3, 4.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 3, 4.

Schoharie grit Near Clarksville, Albany co. N. Y.

C. Van Deloo, coll. 1862

3883/3 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 5.

Hall & Clarke. Paleontology of New York 1888. v. 7, pl. 6, fig. 5.

Schoharie grit Schoharie N. Y.

J. Gebhard purchase

...evonian fossils. 1876.

4605 HYPOTYPE T

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...ntology of New York. 1888.

V

U

Albany county, N. Y.

J. Gebhard purchase

...ustrations of Devonian fossils. 1876.

...c, fig. 11.

4606 ...Clarke. Paleontology of New York. 1888.

...g. 8.

...arie grit Near Clarksville N. Y.

C. Van Deloo, coll. 1862

...TYPE Hall. Illustrations of Devonian fossils. 1876.

Crustacea, pl. 6, fig. 6.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 6, fig. 9.

Schoharie grit Near Clarksville N. Y.

R. P. Whitfield and C. Van Deloo, coll. 1861

4618 TYPE Hall. Illustrations of Devonian fossils. 1876.

Crustacea, pl. 6, fig. 7.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 6, fig. 10.

Schoharie grit Albany county, N. Y.

4619 TYPE Hall. Illustrations of Devonian fossils. 1876.

Crustacea, pl. 6, fig. 12, 13.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 6, fig. 12, 13.

Schoharie grit Schoharie N. Y.

4620 TYPE Hall. Illustrations of Devonian fossils. 1876.

Crustacea, pl. 6, fig. 16.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 6, fig. 27.

Schoharie grit Near Clarksville N. Y.

C. Van Deloo, coll. 1862

4621 TYPE Hall. Illustrations of Devonian fossils. 1876.

Crustacea, pl. 6, fig. 19.

Hall & Clarke. Paleontology of New York. 1888.

v. 7, pl. 6, fig. 26.

Schoharie grit Schoharie N. Y.

C. Van Deloo, coll. 1862

13883/11 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 18.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 28.
Onondaga limestone Near Clarence, Erie co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1860

13883/12 TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 6, fig. 17.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 6, fig. 29.
Schoharie grit Schoharie N. Y.
C. Van Deloo, coll. 1861

13883/13 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 1, 2.
Schoharie grit Albany county, N. Y.

13883/14 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 3.
Schoharie grit Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862

13883/15 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 4.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

Phacops cristata Hall *var.* **pipa** Hall & Clarke

13884/1 TYPE Phacops cristata var. pipa Hall & Clarke. Paleontology of New York. 1888. 7:18, pl. 8A, fig. 5.
Onondaga limestone Leroy, Genesee co. N. Y.
J. M. Clarke, coll. 1885

13884/2 TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 9
Onondaga limestone (drift)
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase
On slab with type of Cyphaspis minuscula, Pal. N. Y. v. 7, pl. 24, fig. 11.

13884/3 PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 10.
Onondaga limestone North Cayuga Ont.

4630 $\frac{13884}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 11, 12.
Onondaga limestone Walpole Ont.
C. D. Walcott, coll. 1878

4631 $\frac{13884}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 14.
Onondaga limestone Lime Rock, Genesee co. N. Y.
J. M. Clarke, coll. 1885

4632 $\frac{13884}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 15.
Onondaga limestone (chert) Canandaigua N. Y.
J. M. Clarke, coll. 1885

4633 $\frac{13884}{7}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 17.
Oriskanian Cayuga Ont.
C. D. Walcott, coll. 1878

4634 $\frac{13884}{8}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 18.
Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

4635 $\frac{13884}{9}$ HYPOTYPE Clarke. Journal of morphology. 1888-89. v. 2, pl. 21, fig. 25, 26.
Onondaga limestone (drift) West Bloomfield. Ontario co. N. Y.
J. M. Clarke purchase

4636 $\frac{13884}{10}$ HYPOTYPE Clarke. Journal of morphology. 1888-89. v. 2, pl. 21, fig. 31.
Onondaga limestone West Bloomfield N. Y.
J. M. Clarke purchase

Phacops logani Hall

4637 $\frac{13885}{1}$ TYPE Phacops logani Hall. Paleontology of New York. 1859. 3:353, pl. 73, fig. 23, 24.
New Scotland beds Schoharie N. Y.
J. Gebhard purchase

4638 $\frac{13885}{2}$ TYPE Hall. Paleontology of New York. 1859. v. 3, pl. 73, fig. 15.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 19.
Helderbergian Schoharie N. Y.
J. Gebhard purchase

4639 $\frac{13885}{3}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 20.
Helderbergian Schoharie N. Y.
J. Gebhard purchase

4640 $\frac{13885}{4}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 1, 2.
Oriskanian Becraft mountain, Hudson N. Y.

4641 $\frac{13885}{5}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 3.
Oriskanian Becraft mountain, Hudson N. Y.

4642 $\frac{13885}{6}$ HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 4.
Oriskanian Becraft mountain, Hudson N. Y.

4643 $\frac{13885}{7}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 1, fig. 5.
Oriskanian Becraft mountain, Hudson N. Y.

Phacops menurus Clarke

4644 $\frac{13886}{1}$ PLASTOTYPE Phacops menurus Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:17, pl. 1, fig. 15.
Maecurú sandstone (Lower Devonic)
Maecurú, Pará, Brazil

Phacops rana Green

4645 $\frac{13887}{1}$ TYPE Calymene bufo var. rana Green. Monograph of the trilobites of North America. 1832. p. 42, original of casts no. 11 and 12.
Hamilton beds Seneca, Ontario co. N. Y.
Albany Institute, donor

4646 $\frac{13887}{2}$ PLASTOTYPE Calymene macrophthalma (Brongniart) Green = C. bufo Green. Monograph of the trilobites of North America. 1832. p. 39, cast no. 9.
Hamilton beds New York (?)
Albany Institute, donor

4647 $\frac{13887}{3}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 7, fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 7, fig. 1.
Hamilton beds Near Geneseo, Livingston co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

4648 $\frac{13997}{4}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 5.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 5.
Hamilton beds Darien, Genesee co. N. Y.
C. A. White and C. Van Deloo, coll. 1862

4649 $\frac{13997}{5}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 9.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 6.
Hamilton beds Near Geneseo N. Y.
C. A. White and C Van Deloo, coll. 1860

4650 $\frac{13997}{6}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 6, 7.
Hall & Clarke. Paleontology of New York. 1888.
v. 7. pl. 7, fig. 7, 8.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

4651 $\frac{13997}{7}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 8.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl 7, fig. 9.
Hamilton beds Canandaigua lake. N. Y.
R. P. Whitfield and C. Van Deloo. coll. 1862

4652 $\frac{13997}{8}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 7, fig. 10. 11.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 7, fig. 10. 11.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

4653 $\frac{13997}{9}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 10.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 11.
Hamilton beds Darien N. Y.
C. A. White and C. Van Deloo, coll. 1860

4654 $\frac{13997}{10}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876.
Crustacea, pl. 8, fig. 12.
Hall & Clarke. Paleontology of New York. 1888.
v. 7, pl. 8, fig. 13.
Hamilton beds Geneseo N. Y.
C. A. White and C. Van Deloo, coll. 1860

4655 $\frac{13887}{11}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 8, fig. 14.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8, fig. 15.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll 1860

4656 $\frac{13887}{12}$ HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 8, fig. 15, 16.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8, fig. 16, 17.
Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

4657 $\frac{13887}{13}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 21.
Hamilton beds Eighteen Mile creek, Erie co. N. Y.
F. A. Randall purchase

4658 $\frac{13887}{14}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 22.
Hamilton beds Darien N. Y.
C. A. White and C. Van Deloo, coll. 1860

4659 $\frac{13887}{15}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 28.
Hamilton beds Near Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

4660 $\frac{13887}{16}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 29.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4661 $\frac{13887}{17}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 30.
Hamilton beds Fultonham, Schoharie co. N. Y.
W. M. Gabb, coll. 1857

4662 $\frac{13887}{18}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 31.
Hamilton beds Canandaigua lake, N. Y.
C. A. White and C. Van Deloo, coll. 1860

4663 $\frac{13887}{19}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 32.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4664 $\frac{13887}{20}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 8A, fig. 33.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4665 $\frac{13887}{21}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 16, fig. 22.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4666 $\frac{13887}{22}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 8.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4667 $\frac{13887}{23}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 9.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4668 $\frac{13887}{24}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 10.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4669 $\frac{13887}{25}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 15, 24.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4670 $\frac{13887}{26}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 17.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4671 $\frac{13887}{27}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 18.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4672 $\frac{13887}{28}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 19.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

4673 $\frac{13887}{29}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 22.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

674 $\frac{13887}{30}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 21.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

675 $\frac{13887}{31}$ HYPOTYPE Clarke. Journal of morphology. 1888–89. v. 2, pl. 21, fig. 30.
Hamilton beds Canandaigua lake, N. Y.
J. M. Clarke purchase

Phacops scirpeus Clarke

676 $\frac{13888}{1}$ PLASTOTYPE Phacops scirpeus Clarke. Archivos do Museu nacional do Rio de Janeiro. 1890. 9:18, pl. 1, fig. 6.
Maecurú sandstone (Lower Devonic)
Maecurú, Pará, Brazil

Phaëtonides arenicolus *see* Cordania arenicola

Phaëtonides cyclurus *see* Cordania cyclurus

Phaëtonides gemmaeus *see* Cordania gemmaea

Phaëtonides macrobius *see* Cordania macrobius

Phaëtonides varicella *see* Cordania varicella

Phillipsia minuscula *see* Cyphaspis minuscula

Phillipsia? (Brachymetopus?) ornata *see* Cyphaspis ornata

Phyllocarid, mandible of *see* Echinocaris punctata

PLATYMETOPUS (Angelin) Schmidt

Platymetopus trentonensis Conrad (sp.)

677 $\frac{13900}{1}$ HYPOPLASTOTYPE Asaphus? trentonsis Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:277.
Platynotus trentonensis Hall. Paleontology of New York. 1847. v. 1, pl. 64, fig. 1e.
Trenton beds Near Cincinnati O.

Platynotus trentonensis *see* Platymetopus trentonensis

Plumulites jamesi *see* Lepidocoleus jamesi

Plumulites newberryi *see* Turrilepas (?) newberryi

POLLICIPES Leach

Pollicipes siluricus Ruedemann

4678 $\frac{13920}{1}$ TYPE Pollicipes siluricus Ruedemann. New York state museum bulletin 42. 1901. p. 578, pl. 2, fig. 16.
Upper Utica shale Green Island, Albany co. N. Y.
R. Ruedemann, coll. 1900

4679 $\frac{13920}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 17.
Lower Utica shale Mechanicville, Saratoga co. N. Y.
R. Ruedemann, coll. 1899

4680 $\frac{13920}{3}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 18, 21.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900

4681 $\frac{13920}{4}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 19.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900

4682 $\frac{13920}{5}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 20.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900

4683 $\frac{13920}{6}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 22, 23.
Upper Utica shale Green Island N. Y.
R. Ruedemann, coll. 1900

4684 $\frac{13920}{7}$ TYPE? PLASTOTYPE? Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 24, 25.
Lower Utica shale Mechanicville N. Y.
R. Ruedemann, coll. 1900
On slab with type of pl. 2, fig. 19.

PRIMITIA Jones

Primitia clarkei Jones

4685 $\frac{13940}{1}$ TYPE Primitia clarkei Jones. Quarterly journal of the Geological society of London. 1890. 46:535, pl. 20, fig. 11.
Onondaga limestone (drift)
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

Primitia mundula Miller *var.* **jonesi** Ruedemann

5 13941/1 TYPE Primitia mundula Miller var. jonesi Ruedemann. New York state museum bulletin 49. 1901. p. 80, pl. 7, fig. 2.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

7 13941/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 3, 4.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

8 13941/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 5.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Problematic crustacean

9 13960/1 TYPE Problematic crustacean Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 20, 21.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

0 13960/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 22, 23.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900
On slab with type of Isotelus cf. maximus, Bull. 49, pl. 4, fig. 1.

1 13960/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 24, 25.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

PROËTUS Steininger

Proëtus sp.? Hall & Clarke

12 13980/1 TYPE Proëtus sp.? Hall & Clarke. Paleontology of New York. 1888. 7:94, pl. 22, fig. 5.
Schoharie grit
Schoharie, Schoharie co. N. Y.
J. Gebhard purchase

13 13980/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 6.
Schoharie grit
Knox, Albany co. N. Y.
C. Van Deloo, coll. 1862.

Proëtus angustifrons Hall

4694 $\frac{13981}{1}$ TYPE Proëtus angustifrons Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 70.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 1.

Schoharie grit — Schoharie N. Y.
J. Gebhard purchase

4695 $\frac{13981}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 2.

Schoharie grit — Clarksville, Albany co. N. Y.
J. M. Clarke purchase

4696 $\frac{13981}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 3.

Schoharie grit — Near Clarksville N. Y.
J. M. Clarke purchase

Proëtus auriculatus *see* Proëtus missouriensis

Proëtus canaliculatus Hall

4697 $\frac{13982}{1}$ TYPE Proëtus canaliculatus Hall. Descriptions of new species of fossils of the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 73.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 10, 11.

Onondaga limestone — Falls of the Ohio, Ky.

Proëtus clarus Hall

4698 $\frac{13983}{1}$ TYPE Proëtus clarus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 71.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 28.

Onondaga limestone — DeCewville Ont.

4699 $\frac{13983}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 29.

Onondaga limestone — Lime Rock, Genesee co. N. Y.
J. M. Clarke, coll. 1888

Proëtus conradi Hall

4700 $\frac{13984}{1}$ TYPE Proëtus conradi Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 69.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 4.

Schoharie grit — Schoharie, Schoharie co. N. Y. J. Gebhard purchase

13984/2 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 11.

Oriskanian — Becraft mountain, Hudson N. Y.

13984/3 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 12.

Oriskanian — Becraft mountain, Hudson N. Y.

13984/4 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 13.

Oriskanian — Becraft mountain, Hudson N. Y.

13984/5 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 14.

Oriskanian — Becraft mountain, Hudson N. Y.

13984/6 HYPOTYPE: HYPOPLASTOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 15.

Oriskanian — Becraft mountain, Hudson N. Y.

13984/7 HYPOTYPE Clarke. New York state museum memoir 3. 1900. pl. 2, fig. 16.

Oriskanian — Becraft mountain, Hudson N. Y.

Proëtus corycoeus Conrad (sp.)

13985/1 HYPOTYPE Asaphus corycoeus Conrad. Journal of the Academy of natural sciences of Philadelphia. 1842. 8:277.

Proëtus corycoeus Hall. Paleontology of New York. 1852. v. 2, pl. 67, fig. 15.

Rochester shale — Lockport, Niagara co. N. Y.

Proëtus crassimarginatus Hall

13986/1 HYPOTYPE Calymene crassimarginata Hall. Geology of New York; report on the 4th district. 1843. p. 173.

Proëtus crassimarginatus Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 20, fig. 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 20, fig. 6.

Schoharie grit — Near Clarksville, Albany co. N. Y. C. Van Deloo, coll. 1862

4709 13986/2 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 20, fig. 23, 24.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 20, fig. 23, 24.
Onondaga limestone Clarence, Erie co. N. Y.
C. A. White, R. P. Whitfield and C. Van Deloo, coll. 1860

4710 13986/3 HYPOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 20, fig. 27.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 20, fig. 27.
Onondaga limestone Cayuga Ont.
J. De Cew, coll. 1866

4711 13986/4 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 20.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

4712 13986/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 21.
Schoharie grit Near Clarksville N. Y.
C. Van Deloo, coll. 1862

4713 13986/8 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 23.
Onondaga limestone Falls of the Ohio, Ky.

4714 13986/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 26.
Onondaga limestone Williamsville, Erie co. N. Y.

Proëtus curvimarginatus Hall & Clarke

4715 13987/1 TYPE Proëtus curvimarginatus Hall & Clarke. Paleontology of New York. 1888. 7:94, pl. 22, fig. 13.
Schoharie grit Pendleton, Madison co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4716 13987/2 TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 14, 15.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4717 13987/3 TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 16.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4718 $\frac{13987}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 17.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4719 $\frac{13987}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 18, 19.
Schoharie grit Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Proëtus davenportensis *see* Proëtus prouti

Proëtus delphinulus Hall & Clarke

4720 $\frac{13988}{1}$ PLASTOTYPE Proëtus delphinulus Hall & Clarke. Paleontology of New York. 1888. 7:111, pl. 23, fig. 1, 2; pl. 25, fig. 6.
Onondaga limestone North Cayuga Ont.

Proëtus folliceps Hall & Clarke

4721 $\frac{13989}{1}$ TYPE Proëtus folliceps Hall & Clarke. Paleontology of New York. 1888. 7:101, pl. 23, fig. 3, 4, 8.
Onondaga limestone Leroy, Genesee co. N. Y.
C. D. Walcott and C. Van Deloo, coll. 1877

4722 $\frac{13989}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 5.
Onondaga limestone Near Leroy N. Y.

4723 $\frac{13989}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 6, 7.
Onondaga limestone (chert in drift) Ann Arbor Mich.
C. Rominger, donor

Proëtus haldemani Hall

4724 $\frac{13990}{1}$ HYPOPLASTOTYPE Proëtus haldemani Hall. Descriptions of new species of fossils from the upper Helderberg, Hamilton and Chemung groups. 1861. p. 74.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 13.
Devonic limestone Rescue hill, Eureka district, Nev.

Proëtus hesione Hall

4725 $\frac{13991}{1}$ PLASTOTYPE Proëtus hesione Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 70.
Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. *20, fig. 15, 16.*

Hall. Paleontology of New York. 1888. v. 7, pl. 20. fig. 15, 16.

Schoharie grit — Schoharie N. Y.

Proëtus latimarginatus Hall & Clarke

4726 $\frac{13992}{1}$ TYPE Proëtus latimarginatus Hall & Clarke. Paleontology of New York. 1888. 7:97, pl. 22, fig. 7.

Schoharie grit — Pendleton, Madison co. Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4727 $\frac{13992}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 8.

Schoharie grit — Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4728 $\frac{13992}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 9.

Schoharie grit — Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4729 $\frac{13992}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 10.

Schoharie grit — Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4730 $\frac{13992}{5}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 11.

Schoharie grit — Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

4731 $\frac{13992}{6}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 12.

Schoharie grit — Pendleton Ind.
C. D. Walcott and C. Van Deloo, coll. 1878

Proëtus (?) longicaudus Hall

4732 $\frac{13993}{1}$ PLASTOTYPE Proëtus longicaudus Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 108, pl. 10, fig. 7–9.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 20, fig. 32–34.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 20, fig. 32–34.

Hamilton beds? (Carboniferous?) — Des Moines Ia.
Rev. Mr Nash, donor

Proëtus macrobius *see* Cordania macrobius

Proëtus macrocephalus Hall

4733 $\frac{13994}{1}$ TYPE Proëtus macrocephalus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. 77.

Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 10.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 10.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1858

4734 $\frac{13994}{2}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 14.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 14.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

4735 $\frac{13994}{3}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 17.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 17.

Hamilton beds Canandaigua lake, N. Y.
R. P. Whitfield and J. W. Hall, coll. 1858

4736 $\frac{13994}{4}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 18.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 18.

Hamilton beds Western New York

4737 $\frac{13994}{5}$ TYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 19.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 19.

Hamilton beds North Bristol, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860

4738 $\frac{13994}{6}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 30.

Hamilton beds Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

4739 21111 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 31.

Hamilton beds Meneth's point, Canandaigua lake, N. Y.
C. A. White and C. Van Deboe, coll. 1860

Proëtus marginalis *see* Proëtus nevadae
Proëtus marginalis *see* Proëtus nevi

Proëtus microgemma Hall & Clarke

4740 21111 TYPE Proëtus microgemma Hall & Clarke. Paleontology of New York. 1888. [prep. pl. 22, fig. 33.

Onondaga limestone Phelps, Ontario co. N. Y.
J. M. Clarke, coll. 1886

4741 21111 TYPE? PLASTOTYPE? (?) Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 34.

Onondaga limestone Canandaigua N. Y.
J. M. Clarke purchase

Proëtus missouriensis Shumard

4742 21111 HYPOTYPE Proëtus missouriensis Shumard. Geological report of Missouri. 1855. p. 196.

Proëtus annulatus Hall. Descriptions of new species of fossils from the Upper Helderberg, Hamilton and Chemung groups. 1861. p. [not figured].

Proëtus missouriensis Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 32.

Waverly beds Licking county, O.

Proetus nevadae Hall & Clarke

4743 21111 PLASTOTYPE Proëtus marginalis Conrad Walcott. Monograph of the United States geological survey. 1884. v. 8. Paleontology of the Eureka district, p. 210.

Proëtus nevadae Hall & Clarke. Paleontology of New York. 1888. [prep. pl. 23, fig. 19.

Devonic Combs peak, Eureka district, Nev.

Proetus ovifrons Hall & Clarke

4744 21111 TYPE Proëtus ovifrons Hall & Clarke. Paleontology of New York. 1888. [prep. pl. 22, fig. 31.

Onondaga limestone [erb]
Canandaigua, Ontario co. N. Y.
J. M. Clarke purchase

745 13998 TYPE: PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 22, fig. 32.

Onondaga limestone (drift) Canandaigua N. Y.
J. M. Clarke purchase

Proëtus phocion Billings

746 13999 PLASTOTYPE Proëtus phocion Billings. Paleozoic fossils of Canada. 1874. v. 2, pt 1, p. 63, pl. 1, fig. 31.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 25, fig. 10.

Grand Grève limestone Indian Cove, Gaspé, Quebec

Proëtus (?) planimarginatus Meek

747 14000 PLASTOTYPE Proëtus planimarginatus Meek. Proceedings of the Academy of natural sciences of Philadelphia. 1871. p. 89.

Meek. Paleontology of Ohio. 1873. v. 1, pl. 23, fig. 3a, 3b.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 12.

Onondaga limestone Sylvania, Lucas co. O.

Proëtus protuberans Hall

748 14001 TYPE Proëtus protuberans Hall. Paleontology of New York. 1859. 3:351, pl. 73, fig. 5.

Coeymans limestone Schoharie county, N. Y.

Proëtus prouti Shumard

749 14002 PLASTOTYPE Proëtus prouti Shumard. Transactions of the St Louis academy of sciences. 1863. v. 2, no. 1, p. 110.

Proëtus davenportensis Barris. Proceedings of the Davenport academy of natural sciences. 1879. v. 2, pl. 11, fig. 8.

Proëtus prouti Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 16, 17.

Hamilton beds Davenport, Scott co. Ia.

Proëtus rowi Green (sp.)

750 14003 PLASTOTYPE Calymene rowi Green. American journal of science and arts. 1838. 33:406.

Proëtus rowi Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 4.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 4.

Hamilton beds Otsego county, N. Y.

4751 14003/2 HYPOPLASTOTYPE Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 5.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 5.

Hamilton beds Otsego county, N. Y.

4752 14003/3 HYPOTYPE Calymene marginalis Conrad. Annual report on the paleontology of New York. 1839. p. 66.

Proëtus marginalis Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 24.

Proëtus rowi Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 24.

Tully limestone Near Ovid, Seneca co. N. Y.
J. Gebhard purchase

4753 14003/4 HYPOTYPE Proëtus marginalis? Hall. Illustrations of Devonian fossils. 1876. Crustacea, pl. 21, fig. 25, 26.

Proëtus rowi Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 21, fig. 25, 26; pl. 23, fig. 27.

Tully limestone Near Ovid N. Y.
J. Gebhard purchase

4754 14003/5 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 20.

Hamilton beds Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

4755 14003/6 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 22.

Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4756 14003/7 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 23.

Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

On slab with type of Turrilepas tenera, Pal. N. Y. v. 7, pl. 36, fig. 9, 11, 13.

4757 14003/8 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 24.

Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4758 $\frac{14003}{9}$ HYPOPLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 25.
Hamilton beds (drift) Ann Arbor Mich.

4759 $\frac{14003}{10}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 26.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

4760 $\frac{14003}{11}$ HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 23, fig. 29.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase

Proëtus stenopyge Hall & Clarke

4761 $\frac{14004}{1}$ TYPE Proëtus stenopyge Hall & Clarke. Paleontology of New York. 1888. 7:110, pl. 22, fig. 27.
Onondaga limestone Phelps, Ontario co. N. Y.
J. M. Clarke, coll. 1886

PSEUDONISCUS Nieszkowski

Pseudoniscus roosevelti Clarke

4762 $\frac{14020}{1}$ TYPE Pseudoniscus roosevelti Clarke. Annual report of the New York state paleontologist. 1901. p. 89, pl. 1, fig. 1.
Salina beds Town of Pittsford, Monroe co. N. Y.
C. J. Sarle purchase

4763 $\frac{14020}{2}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 1.
Salina beds Town of Pittsford N. Y.
C. J. Sarle purchase

4764 $\frac{14020}{3}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 2.
Salina beds Town of Pittsford N. Y.
C. J. Sarle purchase

4765 $\frac{14020}{4}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 2, fig. 3.
Salina waterlime Jerusalem hill, Herkimer co. N. Y.
J. M. Clarke and R. Ruedemann, coll. 1900

PSEUDOSPHAEREXOCHUS Schmidt

Pseudosphaerexochus trentonensis Clarke

4766 $\frac{14040}{1}$ TYPE Pseudosphaerexochus trentonensis Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 735, fig. 53, 54.

Trenton limestone Trenton Falls, Oneida co. N. Y.
W. P. Rust purchase

PTERYGOMETOPUS Schmidt

Pterygometopus eboraceus Clarke

4767 $\frac{14080}{1}$ TYPE Pterygometopus eboraceus Clarke. Geology of Minnesota. 1897. v. 3, pt 2 of the final report; Paleontology, p. 728, fig. 48.

Trenton limestone Rawlins Mills, Saratoga co. N. Y.
W. P. Rust purchase

4768 $\frac{14080}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 4, fig. 15.

Trenton conglomerate Rysedorph hill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

PTERYGOTUS Agassiz

Pterygotus buffaloensis Pohlman

4769 $\frac{14080}{1}$ HYPOTYPE Pterygotus buffaloensis Pohlman. Buffalo society of natural history bulletin. 1883. 4:17.

Clarke. Eastman's Zittel. Textbook of paleontology. 1900. v. 1, pt 2, p. 678, fig. 1425.

Rondout waterlime Buffalo N. Y.
Ward and Howell purchase

Ptychoparia trilineata *see* Conocoryphe trilineata

Ptychoparia trilineata *see* Solenopleura? nana

REMOPLEURIDES Portlock

Remopleurides (Caphyra) linguatus Ruedemann

4770 $\frac{14100}{1}$ TYPE Remopleurides (Caphyra) linguatus Ruedemann. New York state museum bulletin 49. 1901. p. 56, pl. 3, fig. 21–23.

Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

14100/2 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 24, 25.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

14100/3 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 26.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

14100/4 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 27 and 21 (in part).
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

14100/5 TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 28, 29.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Remopleurides tumidus Ruedemann

14101/1 TYPE Remopleurides tumidus Ruedemann. New York state museum bulletin 49. 1901. p. 56, pl. 4, fig. 2–4.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

RHINOCARIS Clarke

Rhinocaris (?) bipennis Clarke

14120/1 TYPE Rhinocaris (?) bipennis Clarke. 15th annual report of the New York state geologist. 1898. p. 69, fig. 1.
Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 9.
Ithaca beds — De Ruyter, Madison co. N. Y.
J. M. Clarke, coll.

14120/2 TYPE Clarke. 15th annual report of the New York state geologist. 1898. p. 69, fig. 2.
Ithaca beds — De Ruyter N. Y.
J. M. Clarke, coll.

Rhinocaris capsella Hall & Clarke

14121/1 TYPE Elymocaris capsella Hall & Clarke. Paleontology of New York. 1888. 7:181, pl. 31, fig. 4.
Hamilton beds — Tichenor's gully,
Canandaigua lake, N. Y
J. M. Clarke purcha

4779 $\frac{14}{3}\frac{21}{1}$ HYPOTYPE Rhinocaris capsella Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 12.

Ithaca beds — Hake's ravine, Pitcher N. Y.
D. D. Luther, coll. 1900

4780 $\frac{14}{3}\frac{21}{1}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 13.

Ithaca beds — Pharsalia Hook, Chenango co. N. Y.
D. D. Luther, coll. 1900

Rhinocaris columbina Clarke

4781 $\frac{14}{1}\frac{22}{1}$ TYPE Rhinocaris columbina Clarke. Paleontology of New York. 1888. 7:195, pl. 31, fig. 16, 17.

Hamilton beds — Tichenor's gully, Ontario co. N. Y.
J. M. Clarke, coll. 1886

4782 $\frac{14}{2}\frac{22}{1}$ TYPE: PLASTOTYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 18.

Hamilton beds — Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

4783 $\frac{14}{3}\frac{22}{1}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 19.

Hamilton beds — Vinegar brook glen, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

4784 $\frac{14}{4}\frac{22}{1}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 20.

Hamilton beds — Tichenor's gully, N. Y.
J. M. Clarke purchase

4785 $\frac{14}{5}\frac{22}{1}$ TYPE Clarke. American naturalist. 1893. 27:795, fig. 2.

Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke, donor

4786 $\frac{14}{6}\frac{22}{1}$ HYPOTYPE Clarke. American naturalist. 1893. 27:797, fig. 4.

Hamilton beds — Canandaigua lake, N. Y.
J. M. Clarke, donor

Rhinocaris columbina var. livonensis Clarke

4787 $\frac{15}{1}\frac{23}{1}$ TYPE Rhinocaris columbina var. livonensis Clarke. Annual report of the New York state paleontologist. 1901. p. 97, pl. 4, fig. 14.

Hamilton shales — Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

4788 $\frac{14}{\frac{1}{2}}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 15.
Hamilton shales — Livonia salt shaft, N. Y. D. D. Luther, coll. 1891

4789 $\frac{14}{\frac{1}{3}}$ TYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 16.
Hamilton shales — Livonia salt shaft, N. Y. D. D. Luther, coll. 1891

Rhinocaris hamiltoniae Hall & Clarke

4790 $\frac{14}{1}$ TYPE: PLASTOTYPE Tropidocaris hamiltoniae Hall & Clarke. Paleontology of New York. 1888. v. 7, explanation of pl. 30, fig. 24, 25.
Hamilton beds — Tichenor's gully, Canandaigua lake, N. Y. J. M. Clarke purchase

Rhinocaris scaphoptera Clarke

4791 $\frac{14}{1}$ TYPE Rhinocaris scaphoptera Clarke. Paleontology of New York. 1888. 7:197, pl. 31, fig. 22, 23.
Hamilton beds — Tichenor's gully, N. Y. J. M. Clarke, coll. 1886

4792 $\frac{14}{\frac{1}{2}}$ HYPOTYPE: HYPOPLASTOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 10.
Ithaca beds — Canasawacta creek, Norwich N. Y. D. D. Luther, coll. 1900

4793 $\frac{14}{\frac{1}{3}}$ HYPOTYPE Clarke. Annual report of the New York state paleontologist. 1901. pl. 4, fig. 11.
Ithaca beds — Buttermilk falls ravine, near South New Berlin, Chenango co. N. Y. D. D. Luther, coll. 1900

Rhinocaris veneris Hall & Clarke

4794 $\frac{14}{1}$ TYPE Mesothyra (Dithyrocaris?) veneris Hall & Clarke. Paleontology of New York. 1888. 7:193, pl. 33, fig. 3.
Marcellus shale — Mud creek, East Bloomfield, Ontario co. N. Y. J. M. Clarke purchase

SCHIZODISCUS Clarke

Schizodiscus capsa Clarke

4795 $\frac{14}{1}\frac{40}{}$ TYPE: PLASTOTYPE Schizodiscus capsa Clarke. Paleontology of New York. 1888. 7:209, pl. 35, fig. 1, 2.
Hamilton beds Near Centerfield, Ontario co. N. Y.
J. M. Clarke purchase

4796 $\frac{14}{2}\frac{40}{}$ TYPE: PLASTOTYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 3, 4.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

4797 $\frac{14}{3}\frac{40}{}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 5.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

4798 $\frac{14}{4}\frac{40}{}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 6.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

4799 $\frac{14}{5}\frac{40}{}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 7, 8.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

4800 $\frac{14}{6}\frac{40}{}$ TYPE Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 9.
Hamilton beds Near Centerfield N. Y.
J. M. Clarke purchase

SCHMIDTELLA Ulrich

Schmidtella crassimarginata Ulrich

var. ventrilabiata Ruedemann

4801 $\frac{14}{1}\frac{50}{}$ TYPE Schmidtella crassimarginata Ulrich var. ventrilabiata Ruedemann. New York state museum bulletin 49. 1901. p. 75, pl. 7, fig. 12–14.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

4802 $\frac{14}{2}\frac{60}{}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 7, fig. 16–18.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

SOLENOPLEURA Angelin

Solenopleura ? nana Ford

14180/1 TYPE Solenopleura nana Ford. American journal of science, ser. 3. 1878. 15:126 (not figured).
Lower Cambric — Troy N. Y.
S. W. Ford purchase

14180/2 HYPOTYPE Solenopleura nana Ford. American journal of science, ser. 3. 1878. 15:126.
Ptychoparia trilineata Walcott. United States geological survey bulletin 30. 1886. pl. 27, fig. 1b.
Solenopleura ? nana Walcott. 10th annual report of the director of the United States geological survey. 1890. pl. 98, fig. 1e.
Lower Cambric — Lansingburg, Rensselaer co. N. Y.
S. W. Ford purchase

SPATHIOCARIS Clarke

Spathiocaris emersoni Clarke

14200/1 TYPE Spathiocaris emersoni Clarke. American journal of science, ser. 3. 1882. 23:477, pl., fig. 3.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 12.
Portage (Naples) beds — Naples, Ontario co. N. Y.
J. M. Clarke purchase

14200/2 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 13.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke purchase

14200/3 HYPOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 14.
Portage (Naples) beds — Naples N. Y.

14200/4 TYPE Clarke. American journal of science, ser. 3. 1882. v. 23, pl., fig. 1.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 35, fig. 15.
Portage (Naples) beds — Naples N. Y.
J. M. Clarke purcha-

14200/5 TYPE Clarke. American journal of science, 1882. v. 23, pl., fig. 2.

4821 $\frac{14281}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 15–17.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4822 $\frac{14281}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 18–20.
Trenton conglomerate — Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

Trimerus delphinocephalus *see* Homalonotus (Trimerus) delphinocephalus

TRINUCLEUS Lhwyd

Trinucleus concentricus Eaton (sp.)

4823 $\frac{14300}{1}$ HYPOPLASTOTYPE (Plastotype of Green's species) Nuttainia concentrica Eaton. Textbook of geology. 1832. p. 128.
Cryptolithus tesselatus Green. Monograph of the trilobites of North America. 1832. p. 73. Original cast no. 28.
Lorraine beds — Near Waterford N. Y.
Albany Institute, donor

TROPIDOCARIS Beecher

Tropidocaris alternata Beecher

4824 $\frac{14320}{1}$ PLASTOTYPE Tropidocaris alternata Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 19, pl. 2, fig. 7.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig 14.
Waverly beds — Warren Pa.

Tropidocaris bicarinata Beecher

4825 $\frac{14321}{1}$ PLASTOTYPE Tropidocaris bicarinata Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 16, pl. 2, fig. 3.
Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 7, 9.
Chemung beds — Warren Pa.

4826 $\frac{14321}{2}$ HYPOTYPE Hall & Clarke. Paleontology of New York 1888. v. 7, pl. 31, fig. 8, 10.
Chemung beds — Warren Pa.

Tropidocaris hamiltoniae *see* Rhinocaris hamiltoniae

Tropidocaris interrupta Beecher

4827 $\frac{14322}{1}$ PLASTOTYPE Tropidocaris interrupta Beecher. Second geological survey of Pennsylvania, PPP. 1884. p. 18, pl. 2, fig. 6.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 31, fig. 13.

Chemung beds — Warren Pa.

TURRILEPAS Woodward

Turrilepas cancellata Hall & Clarke

4828 $\frac{14310}{1}$ TYPE Turrilepas cancellatus Hall & Clarke. Paleontology of New York. 1888. 7:216, pl. 36, fig. 2.

Onondaga limestone — Canandaigua, Ontario co. N. Y. J. M. Clarke purchase

Turrilepas devonica Clarke

4829 $\frac{14311}{1}$ TYPE Turrilepas devonicus Clarke. American journal of science, ser. 3. 1882. 24:55, fig. 1.

Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 3.

Hamilton beds — Canandaigua N. Y. J. M. Clarke purchase

Turrilepas (?) filosa Ruedemann

4830 $\frac{14312}{1}$ TYPE Turrilepas (?) filosus Ruedemann. New York state museum bulletin 42. 1901. p. 577, pl. 2, fig. 13, 14.

Lower Utica shale — Mechanicville, Saratoga co. N. Y. R. Ruedemann, coll. 1900

4831 $\frac{14312}{2}$ TYPE Ruedemann. New York state museum bulletin 42. 1901. pl. 2, fig. 15.

Lower Utica shale — Mechanicville N. Y. R. Ruedemann, coll. 1900

Turrilepas flexuosa Hall & Clarke

4832 $\frac{14313}{1}$ TYPE Turrilepas flexuosus Hall & Clarke. Paleontology of New York. 1888. 7:215, pl. 36, fig. 1.

Onondaga limestone — Near Canandaigua N. Y. J. M. Clarke purchase

Turrilepas foliata Hall & Clarke

4833 $\frac{14344}{1}$ TYPE Turrilepas foliatus Hall & Clarke. Paleontology of New York. 1888. 7:218, pl. 36, fig. 15.
Hamilton beds — Canandaigua, Ontario co. N.Y.
J. M. Clarke purchase

Turrilepas (?) newberryi Whitfield (sp.)

4834 $\frac{14345}{1}$ PLASTOTYPE Plumulites newberryi Whitfield. Annals of the New York Academy of sciences. 1882. 2:217.
Turrilepas (?) newberryi Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36. fig. 17.
Cleveland shale — Sheffield, Erie co. O.

4835 $\frac{14345}{2}$ PLASTOTYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 19.
Cleveland shale — Sheffield O.

Turrilepas nitidula Hall & Clarke

4836 $\frac{14346}{1}$ TYPE Turrilepas nitidulus Hall & Clarke. Paleontology of New York. 1888. 7:218, pl. 36. fig. 4.
Hamilton beds — Canandaigua N.Y.
J. M. Clarke purchase

Turrilepas squama Hall & Clarke

4837 $\frac{14347}{1}$ TYPE Turrilepas squama Hall & Clarke. Paleontology of New York. 1888. 7:217, pl. 36, fig. 5.
Hamilton beds — Canandaigua N.Y.
J. M. Clarke purchase

4838 $\frac{14347}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 6.
Hamilton beds — Centerfield, Ontario co. N.Y.
J. M. Clarke purchase

4839 $\frac{14347}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 7.
Hamilton beds — Canandaigua N.Y.
J. M. Clarke purchase

4840 $\frac{14347}{4}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl 36, fig. 8.
Hamilton beds — Centerfield N.Y.
J. M. Clarke purchase

Turrilepas tenera Hall & Clarke

4841 $\frac{14348}{1}$ TYPE Turrilepas tener Hall & Clarke. Paleontology of New York. 1888. 7:219, pl. 36, fig. 9, 11, 13.
Hamilton beds Centerfield N. Y.
J. M. Clarke purchase
On slab with Proëtus rowi, pl. 23, fig. 23.

4842 $\frac{14348}{2}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 10.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

4843 $\frac{14348}{3}$ TYPE Hall & Clarke. Paleontology of New York. 1888. v. 7, pl. 36, fig. 12.
Hamilton beds Canandaigua N. Y.
J. M. Clarke purchase

PISCES

BOTHRIOLEPIS Eichwald

Bothriolepis leidyi (?) Newberry

4844 $\frac{15000}{1}$ HYPOTYPE? Bothriolepis leidyi Newberry. United States geological survey monograph 16. 1889. p. 111.
(?) Eastman. 17th annual report of the New York state geologist. 1899. p. 324 (not figured).
Catskill sandstone Ontario & Western railroad tunnel between Merrickville and North Walton, Delaware co. N. Y.
C. S. Prosser, coll. 1897

Bothriolepis minor Newberry

4845 $\frac{16001}{1}$ HYPOTYPE Bothriolepis minor Newberry. United States geological survey monograph 16. 1889. p. 112.
Eastman. 17th annual report of the New York state geologist. 1899. p. 325, fig. 5 (outline).
Catskill sandstone Ontario & Western railroad tunnel between Merrickville and North Walton, N. Y.
C. S. Prosser, coll. 1899

4846 $\frac{16001}{2}$ HYPOTYPE Eastman. 17th annual report of the New York state geologist. 1899. p. 325, fig. 5.
Catskill sandstone Ontario & Western railroad tunnel between Merrickville and North Walton, N. Y.
C. S. Prosser, coll. 1899

Coccosteus(?) halmodeus *see* Dinichthys halmodeus

DINICHTHYS Newberry

Dinichthys sp. Eastman

4847 $\frac{16020}{1}$ HYPOTYPE Dinichthys sp. Eastman. 17th annual report of the New York state geologist. 1899. p. 320, fig. 1.
Chemung beds Franklin station, Delaware co. N. Y.
C. S. Prosser, coll. 1897

4848 $\frac{16020}{2}$ HYPOTYPE Dinichthys sp. Eastman. 17th annual report of the New York state geologist. 1899. p. 326, fig. 6.
Catskill sandstone Kaaterskill creek above Palenville, Delaware co. N. Y.
C. S. Prosser, coll. 1897

Dinichthys halmodeus Clarke (sp.)

4849 $\frac{16021}{1}$ TYPE Coccosteus(?) halmodeus Clarke. 13th annual report of the New York state geologist. 1894. 1:161, pl. 1, fig. 1.
Marcellus shale Livonia salt shaft, Livingston co. N. Y.
D. D. Luther, coll. 1891

4850 $\frac{16021}{2}$ TYPE Clarke. 13th annual report of the New York state geologist. 1894. v. 1, pl. 1, fig. 2.
Marcellus shale Livonia salt shaft, N. Y.
D. D. Luther, coll. 1891

Dinichthys lincolni Claypole

4851 $\frac{16022}{1}$ TYPE Dinichthys lincolni Claypole. American geologist. 1893. 12:275; 276, fig. 2, 3.
Marcellus shale Geneva, Ontario co. N. Y.
D. F. Lincoln, donor

Dinichthys newberryi Clarke

4852 $\frac{16023}{1}$ TYPE (of description; dorso-median plate) Dinichthys newberryi Clarke. United States geological survey bulletin 16. 1885. p. 17 (19).
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke, donor

HOLOPTYCHIUS Agassiz

Holoptychius americanus Leidy

53 $\frac{16040}{1}$ HYPOTYPE Holoptychius americanus Leidy. Journal of the Academy of natural sciences of Philadelphia, ser. 2. 1856. 3:159.

Eastman. 17th annual report of the New York state geologist. 1899. p. 321 (not figured).

Chemung beds — Jefferson, Delaware co. N. Y.
C. S. Prosser, coll. 1897

Holoptychius halli Newberry

54 $\frac{16041}{1}$ TYPE (2 specimens) Holoptychius hallii Newberry. United States geological survey monograph 16. 1889. p. 114, pl. 20, fig. 10, 10a.

Catskill sandstone — Delhi, Delaware co. N. Y.
Rev. Mr Fitch, donor

Ichthyodorulite *see* Machaeracanthus sulcatus

MACHAERACANTHUS Newberry

Machaeracanthus sulcatus Newberry

55 $\frac{16060}{1}$ TYPE Ichthyodorulite Hall. Geology of New York; report on the 4th district. 1843. p. 174, fig. 69.

Machaeracanthus sulcatus Newberry. National institute bulletin. 1857. p. 6 (no figure given).

Newberry. Geological survey of Ohio. 1873. v. 1, pt 2; Paleontology, p. 305 (no figure given).

Onondaga limestone — Victor, Ontario co. N. Y.
Geological survey collection

ONCHUS Agassiz

Onchus rectus Eastman

56 $\frac{16080}{1}$ TYPE Onchus rectus Eastman. 17th annual report of the New York state geologist. 1899. p. 323, fig. 4.

Catskill sandstone — Ontario and Western railroad tunnel between Merrickville and North Walton, Delaware co. N. Y.
C. S. Prosser, coll. 1897

PALAEONISCUS Agassiz

Palaeoniscus devonicus Clarke

4857 $\frac{16}{1}\frac{20}{}$ TYPE Palaeoniscus devonicus Clarke. United States geological survey bulletin 16. 1885. p. 41, pl. 1, fig. 4.

Portage (Naples) beds — Sparta, Livingston co. N. Y.
J. M. Clarke, donor

PRISTACANTHUS Agassiz

Pristacanthus vetustus Clarke

4858 $\frac{16}{1}\frac{20}{}$ PLASTOTYPE Pristacanthus vestustus Clarke. United States geological survey bulletin 16. 1885. p. 42, pl. 1, fig. 7.

Portage (Naples) beds — Near Milo, Yates co. N. Y.
J. M. Clarke, donor

SUPPLEMENTARY LIST TO FEBRUARY 1903

PLANTAE

CLADOXYLON Unger

Cladoxylon mirabile Unger

4859 $\frac{170}{1}$ TYPE (of description) Cladoxylon mirabile (Unger) Dawson. Fossil plants of the Erian and Silurian of Canada, pt 2. 1882. p. 126.

Clarke. United States geological survey bulletin 16. 1885. p. 26.

Genesee shale (Styliola limestone)

Canandaigua lake, N. Y.

J. M. Clarke, donor

THAMNOCLADUS White

Thamnocladus clarkei White

4860 $\frac{180}{1}$ TYPE Thamnocladus clarkei White. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 596, pl. 3, fig. 1.

Chemung beds East Windsor, Broome co. N. Y.

E. B. Hall, donor

On slab with type of pl. 4, fig. 1.

4861 $\frac{180}{2}$ TYPE White. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 4, fig. 1.

Chemung beds East Windsor N. Y.

E. B. Hall, donor

On slab with type of pl. 3, fig. 1.

COELENTERATA

SPONGIAE

ARYSTIDICTYA Hall & Clarke

Arystidictya elegans Hall & Clarke

4862 $\frac{2081}{1}$ PLASTOTYPE Arystidictya elegans Hall & Clarke. New York state museum memoir 2. 1898. p. 136, pl. 41, fig. 10 and pl. 42, fig. 7.

Lower Chemung beds Cotton hill, near Avoca,

Steuben co. N. Y.

BOTRYODICTYA Hall & Clarke

Botryodictya ramosa Lesquereux (sp)

4863 $\frac{21\,00}{2}$ HYPOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 13, fig. 8.

Chemung beds — Lawrenceville, Tioga co. Pa. A. Sherwood, coll.

CALATHOSPONGIA Hall & Clarke

Calathospongia (?) magnifica Hall & Clarke

4864 $\frac{21\,23}{1}$ PLASTOTYPE Calathospongia (?) magnifica Hall & Clarke. New York state museum memoir 2. 1898. p. 182, pl. 56, fig. 5.

Keokuk group — Crawfordsville Ind.

4865 $\frac{21\,23}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 57, fig. 1.

Keokuk group — Crawfordsville Ind.

CERATODICTYA Hall & Clarke

Ceratodictya cincta Hall (sp.)

4866 $\frac{21\,43}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 22, fig. 7, 8.

Chemung beds — Erie Pa.

CRYPTODICTYA Hall

Cryptodictya alleni Hall

4867 $\frac{22\,20}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 31, fig. 5.

Chemung beds — Lyndon, Cattaraugus co. N Y.

Dictyophyton morini *see* Dictyospongia morini

DICTYOSPONGIA Hall & Clarke

Dictyospongia morini Barrois (sp.)

4868 $\frac{23\,05}{1}$ PLASTOTYPE Dictyophyton morini Barrois. Annales de la Societé Geologique du Nord. 1883. 11:83. pl. 1. fig. 2a-c.

Dictyospongia morini Hall & Clarke. New York state museum memoir 2. 1898. pl. 46, fig. 1, 2.

Psammites du Condroz — Jeumont, France

HYDNOCERAS Conrad

Hydnoceras hypastrum Hall & Clarke

4869 $\frac{2332}{1}$ PLASTOTYPE Hydnoceras hypastrum Hall & Clarke. New York state museum memoir 2. 1898. p. 105, pl. 7, fig. 1.
Chemung beds — Steuben county, N. Y.

Hydnoceras jeumontense Hall & Clarke

4870 $\frac{2333}{1}$ PLASTOTYPE Hydnoceras jeumontense Hall & Clarke. New York state museum memoir 2. 1898. p. 148, pl. 46, fig. 5.
Psammites du Condroz — Jeumont, France

4871 $\frac{2333}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 46, fig. 6.
Psammites du Condroz — Jeumont, France

Hydnoceras tuberosum Conrad

4872 $\frac{2329}{10}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 7, fig. 3.
Chemung beds — Brown hill, near Cohocton, Steuben co. N. Y.

HYPHANTAENIA Vanuxem

Hyphantaenia chemungensis Vanuxem (sp.)

4873 $\frac{2360}{4}$ HYPOPLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. pl. 29, fig. 1.
Chemung beds — Near Owego, Tioga co. N. Y.

PRISMODICTYA Hall & Clarke

Prismodictya cercidea Hall & Clarke

4874 $\frac{2487}{2}$ PLASTOTYPE Hall & Clarke. New York state museum memoir 2. 1898. p. 89, pl. 20, fig 2.
Chemung beds — Wellsville, Allegany co. N. Y.

Prismodictya corynia Hall & Clarke

4875 $\frac{2496}{1}$ PLASTOTYPE Prismodictya corynia Hall & Clarke. New York state museum memoir 2. 1898. p. 86, pl. 17, fig. 11.
Chemung beds — Wellsville N. Y.

RHABDOSISPONGIA Hall & Clarke

Rhabdosispongia condroziana Hall & Clarke

4876 $\frac{2501}{1}$ PLASTOTYPE Rhabdosispongia condroziana Hall & Clarke. New York state museum memoir 2. 1898. p. 149, pl. 47, fig. 1.

Psammites du Condroz — Jeumont, France

CNIDARIA

BOLBOPORITES Pander

Bolboporites americanus Billings

4877 $\frac{3060}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 1.

Trenton conglomerate (Chazy limestone pebble)

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

CLIMACOGRAPTUS Hall

Climacograptus scharenbergi Lapworth

4878 $\frac{3-820}{1}$ HYPOTYPE Climacograptus scharenbergi Lapworth in Armstrong, Young & Robertson's Catalogue of west Scottish fossils. 1876. p. 140.

Ruedemann. New York state museum bulletin 42. 1901. pl. 1, fig. 1.

Ruedemann. New York state museum bulletin 49. 1901. pl. 3, fig. 1.

Trenton conglomerate

Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

On slab with Ampyx hastatus Ruedemann. N. Y. state mus. bul. 49, pl. 8, fig. 1.

CLONOGRAPTUS Hall

Clonograptus (Goniograptus) sp. nov. Ruedemann

4880 [illegible] TYPE Clonograptus (Goniograptus) sp. nov. Ruedemann. New York state museum bulletin 52: annual report of the state paleontologist. 1902. p. 582, fig. 12.

Beekmantown graptolite shale

Deep kill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1901

COENOGRAPTUS Hall

Coenograptus gracilis Hall

80 $\frac{3210}{1}$ HYPOTYPE Graptolithus gracilis Hall. Paleontology of New York. 1847. 1:274.

Coenograptus gracilis Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 583, fig. 13.

Normanskill graptolite shale — Mt Moreno, Columbia co. N. Y. R. Ruedemann, coll. 1900

DIDYMOGRAPTUS McCoy

Didymograptus (Leptograptus) sp. nov. Ruedemann

81 $\frac{3321}{1}$ TYPE Didymograptus (Leptograptus) sp. nov. Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 589, fig. 17.

Beekmantown graptolite shale — Deep kill, Rensselaer co. N. Y. R. Ruedemann, coll. 1901

Diplograpsis ruedemanni *see* Diplograptus ruedemanni

DIPLOGRAPTUS McCoy

Diplograptus foliaceus Murchison (sp.)

82 $\frac{3340}{2}$ HYPOTYPE Ruedemann. American journal of science. 1895. 49:455, fig. 1.

Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 1.

Utica shale — Dolgeville, Herkimer co. N. Y. R. Ruedemann purchase

83 $\frac{3340}{3}$ HYPOTYPE Ruedemann. American journal of science. 1895. 49:455, fig. 4.

Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 5.

Utica shale — Dolgeville N. Y. R. Ruedemann purchase

84 $\frac{3340}{4}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 8.

Utica shale — Dolgeville N. Y. R. Ruedemann purchase

4885 $\frac{3340}{5}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 9.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4886 $\frac{3340}{6}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 18.

4887 $\frac{3340}{7}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4888 $\frac{3340}{8}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 2.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 3–3b, 5, 6.

4889 $\frac{3340}{9}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 3–3b.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 5 and 6.

4890 $\frac{3340}{10}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 4.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 12.

4891 $\frac{3340}{11}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 5.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 3–3b, 6.

4892 $\frac{3340}{12}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 2, 3–3b, 5.

$\frac{3340}{13}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 7, 7a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

$\frac{3340}{14}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 8.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

$\frac{3340}{15}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 9, 9a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 10.

$\frac{3340}{16}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 9, 9a.

$\frac{3340}{17}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 11.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

$\frac{3340}{18}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 12.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 3, fig. 4.

$\frac{3340}{19}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 13.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

$\frac{3340}{20}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 14.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

$\frac{3340}{21}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 15.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4902 $\frac{3340}{23}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 16.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4903 $\frac{3340}{23}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4904 $\frac{3340}{24}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 18.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 2, fig. 6.

4905 $\frac{3340}{25}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 19.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4906 $\frac{3340}{26}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 20.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4907 $\frac{3340}{27}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 21, 21a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4908 $\frac{3340}{25}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 22, 22a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4909 $\frac{3340}{26}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 23, 23a.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4910 $\frac{3340}{30}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 24.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4911 $\frac{3340}{31}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 25.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4912 $\frac{3340}{32}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 3, fig. 26.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

Diplograptus pristiniformis *see* Diplograptus ruedemanni

Diplograptus ruedemanni Gurley (sp.)

4913 $\frac{3350}{1}$ TYPE Diplograpsis ruedemanni Gurley. Journal of geology. 1896. 4:307.
Diplograptus pristiniformis (Hall) Ruedemann. American journal of science. 1895. 49:455, fig. 2.
Diplograptus ruedemanni Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 2.
Utica shale Dolgeville, Herkimer co. N. Y.
R. Ruedemann purchase

4914 $\frac{3350}{2}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 3.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4915 $\frac{3350}{3}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4916 $\frac{3350}{4}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 7.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 2, fig. 1, 2.

4917 $\frac{3350}{5}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 1, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4918 $\frac{3350}{6}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 1, fig. 7 and pl. 2, fig. 2.

4919 $\frac{3350}{7}$ TYPE Diplograptus pristiniformis (Hall) Ruedemann. American journal of science. 1895. 49:455, fig. 3.
Diplograptus ruedemanni Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig 2.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 1, fig. 7 and pl. 2, fig. 1.

4920 $\frac{3350}{8}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 3.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4921 $\frac{3350}{9}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 2, fig. 4.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

4922 $\frac{3350}{10}$ HYPOTYPE Ruedemann. 14th annual report of the New York state geologist. 1895. pl. 5.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

GONIOGRAPTUS McCoy

Goniograptus thureaui McCoy *var.* **postremus** Ruedemann

4923 $\frac{3430}{1}$ TYPE Goniograptus thureaui McCoy var. postremus Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 580; 577, fig. 1.
Beekmantown graptolite shale
Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1901

4924 $\frac{3430}{2}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 577, fig. 2.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

5 $\frac{3430}{3}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 577, fig. 3.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

6 $\frac{3430}{4}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 578, fig. 4.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

7 $\frac{3430}{5}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 578, fig. 5.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

8 $\frac{3430}{6}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 578, fig. 6.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

9 $\frac{3480}{7}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 578, fig. 7.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

10 $\frac{3430}{8}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 578, fig. 8.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

11 $\frac{3430}{9}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 579, fig. 9.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

12 $\frac{3430}{10}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 579, fig. 10.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

4933 $\frac{3430}{11}$ TYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 580, fig. 11.

Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

Graptolithus bigsbyi *see* Tetragraptus bigsbyi

Graptolithus fruticosus *see* Tetragraptus fruticosus

Graptolithus gracilis *see* Coenograptus gracilis

PHYLLOGRAPTUS Hall

Phyllograptus ilicifolius Hall

4934 $\frac{3610}{1}$ HYPOTYPE Phyllograptus ilicifolius Hall. Geological survey of Canada; report for 1858. p. 139.

Ruedemann. New York state museum bulletin 52 annual report of the state paleontologist. 1902. p. 590, fig. 19.

Beekmantown graptolite shale
Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1901

SYRINGOPORA Goldfuss

Syringopora infundibulum Whitfield

4935 $\frac{3810}{1}$ HYPOTYPE Syringopora infundibula Whitfield. Geological survey of Wisconsin; annual report. 1877. p. 79.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 1, fig. 6–9.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

TETRADIUM Dana

Tetradium cellulosum Hall (sp.)

4936 $\frac{3820}{2}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 1.

Lowville limestone
Ingham's Mills, East Canada creek, N. Y.
R. Ruedemann purchase

4937 $\frac{3820}{3}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 2.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4938 $\frac{3820}{4}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 3.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4939 $\frac{3820}{5}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 4.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
On slab with type of pl. 5, fig. 5.

4940 $\frac{3820}{6}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 5.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase
On slab with type of pl. 5, fig. 4.

4941 $\frac{3820}{7}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 6a, 6b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4942 $\frac{3820}{8}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 7.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4943 $\frac{3820}{9}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 8.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4944 $\frac{3820}{10}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 9.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4945 $\frac{3820}{11}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 10.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4946 $\frac{3820}{12}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 11.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4947 $\frac{3820}{13}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 12.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4948 $\frac{3820}{14}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 13.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4949 $\frac{3820}{15}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 14a, 14b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4950 $\frac{3820}{16}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 15.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

4951 $\frac{3820}{17}$ HYPOTYPE Ruedemann. American geologist. 1898. v. 22, pl. 5, fig. 16a, 16b.
Lowville limestone Ingham's Mills N. Y.
R. Ruedemann purchase

TETRAGRAPTUS Salter

Tetragraptus bigsbyi Hall (sp.)

4952 $\frac{3830}{1}$ HYPOTYPE Graptolithus bigsbyi Hall. Geological survey of Canada; report for 1858. p. 140.
Tetragraptus bigsbyi Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 590, fig. 18a.
Beekmantown graptolite shale
Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1901

4953 $\frac{3830}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 590, fig. 18b.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

Tetragraptus fruticosus Hall

4954 $\frac{3831}{1}$ HYPOTYPE Graptolithus fruticosus Hall. Geological survey of Canada; report for 1858. p. 128.

Tetragraptus fruticosus Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 588, fig. 15.

Beekmantown graptolite shale Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1902

Tetragraptus taraxacum Ruedemann

4955 $\frac{3832}{1}$ TYPE Tetragraptus taraxacum Ruedemann. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 589, fig. 16.

Beekmantown graptolite shale Deep kill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1902

ECHINODERMATA

AGELACRINITES Vanuxem

Agelacrinites beecheri Clarke

4956 $\frac{4002}{1}$ 2 PLASTOTYPES Agelacrinites beecheri Clarke. New York state museum bulletin 49. 1901. p. 195, fig. 4, 6.

Lower Carbonic Warren Pa.

Agelacrinites buttsi Clarke

4957 $\frac{4003}{1}$ TYPE: PLASTOTYPE Agelacrinites buttsi Clarke. New York state museum bulletin 49. 1901. p. 196, pl. 10, fig. 7–9.

Supradevonic sandstone (Cattaraugus beds)
Mt Moriah, Cattaraugus co. N. Y.

4958 $\frac{4003}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. p. 197, fig. 7.

Lower Carbonic Warren Pa.

Agelacrinites hamiltonensis Vanuxem

362 $\frac{4000}{1}$ TYPE: PLASTOTYPE Agelacrinites hamiltonensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 158; p. 306, fig. 80.

Clarke. New York state museum bulletin 49. 1901. pl. 10, fig. 6.

Hamilton beds — Hamilton, Madison co. N. Y.

LEPIDODISCUS Meek & Worthen

Lepidodiscus alleganius Clarke

4959 $\frac{12885}{1}$ TYPE: PLASTOTYPE Lepidodiscus alleganius Clarke. New York state museum bulletin 49. 1901. p. 194, pl. 10, fig. 1.

Chemung sandstones — Loose at Alfred, Allegany co. N.Y. Ward purchase

4960 $\frac{12885}{2}$ TYPE: PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. pl. 10, fig. 2.

Chemung sandstones — Loose at Belvidere, Allegany co. N.Y.

On slab with type of pl. 10, fig. 5.

4961 $\frac{12885}{3}$ PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. pl. 10, fig. 3.

Chemung sandstones — 2 miles north of Sabinsville, Tioga co. Pa.

4962 $\frac{12885}{4}$ TYPE: PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. pl. 10, fig. 4.

Chemung sandstones — Loose at Alfred N. Y. Ward purchase

4963 $\frac{12885}{5}$ TYPE: PLASTOTYPE Clarke. New York state museum bulletin 49. 1901. pl. 10, fig. 5.

Chemung sandstones — Loose at Belvidere N. Y.

On slab with type of pl. 10, fig. 2.

LYRIOCRINUS Hall

Lyriocrinus melissa Hall

4964 $\frac{12887}{1.}$ HYPOTYPE Rhodocrinus melissa Hall. Transactions of the Albany Institute. 1863. 4:198 (abstract p. 4). Lyriocrinus melissa Hall. 11th annual report of the Indiana state geologist. 1882. pl. 15, fig. 11.

Niagaran — Waldron, Shelby co. Ind. C. D. Walcott & C. Van Deloo, coll. 1878

PENTREMITES Say

Pentremites whitei Hall

4965 $\frac{4430}{1}$ TYPE Pentremites whitei Hall. 15th annual report of the New York state cabinet of natural history. 1862 p. 150.
Hamilton beds Vincent, Ontario co. N. Y.
C. A. White and C. Van Deloo, coll. 1860.

4966 $\frac{4430}{2}$ TYPE Hall. 15th annual report of the New York state cabinet of natural history. 1862. p. 150.
Hamilton beds Vincent N. Y.
C. A. White and C. Van Deloo, coll. 1860.

Rhodocrinus melissa *see* Lyriocrinus melissa

VERMES

CORNULITES Schlotheim

Cornulites arcuatus Conrad

4967 $\frac{5000}{1}$ HYPOTYPE: HYPOPLASTOTYPE Cornulites arcuatus Conrad. Journal of the Academy of natural sciences. 1842. 8:276.
Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 105, pl. 4, fig. 2.
Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902.

4968 $\frac{5000}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 4.
Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y
D. D. Luther, coll. 1901.

PLANOLITES Nicholson

Planolites clarkii Prosser

4969 $\frac{5150}{1}$ TYPE Planolites clarkii Prosser. 17th annual report of the New York state geologist. 1899. p. 149, pl. 6.
Hamilton beds 4 miles south of East Worcester N. Y.

BRYOZOA

Alecto inflata *see* Stomatopora inflata

BYTHOPORA Miller & Dyer

Bythopora spinulosa Hall (sp.)

4970 $\frac{6070}{1}$ HYPOTYPE Trematopora spinulosa Hall. Paleontology of New York. 1852. 2:155.

Bythopora spinulosa Grabau. New York state museum bulletin 45. 1901. p. 166, fig. 64.

Rochester shale Middleport, Niagara co. N. Y.

On slab with Chilotrypa ostiolata, New York state museum bulletin 45, p. 164, fig. 60.

POLYPORA McCoy

Polypora eudora Hall

4971 $\frac{6711}{4}$ TYPE Hall. 2d annual report of the New York state geologist. 1883. pl. 19, fig. 8–10.

Hall & Simpson. Paleontology of New York. 1887. v. 6, pl. 19, fig. 8–10.

New Scotland beds Near Clarksville, Albany co. N. Y.

On slab with type of Fenestella adraste, Pal. N. Y. v. 6, pl. 20, fig. 20, 21.

STOMATOPORA Bronn

Stomatopora inflata Hall (sp.)

4972 $\frac{6005}{1}$ HYPOTYPE Alecto inflata Hall. Paleontology of New York. 1847. 1:77.

Stomatopora inflata Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 2.

Trenton conglomerate Rysedorph hill, Rensselaer co. N. Y.

R. Ruedemann, coll. 1900

4973 $\frac{6005}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 3.

Trenton conglomerate Rysedorph hill, N. Y.

R. Ruedemann, coll. 1900

Trematopora spinulosa *see* Bythopora spinulosa

BRACHIOPODA

AMBOCOELIA Hall

Ambocoelia nana Grabau

4974 $\frac{7013}{1}$ HYPOTYPE Ambocoelia umbonata var. nana Grabau. 16th annual report of the New York state geologist. 1899. p. 276.

Ambocoelia nana Wood. New York state museum bulletin 49. 1901. p. 165, pl. 9, fig. 21–23.

Marcellus (Stafford) limestone Lancaster, Erie co. N. Y.
E. Wood, donor

Ambocoelia umbonata var. nana *see* Ambocoelia nana

Atrypa cuneata *see* Rhynchotreta cuneata

CAMAROTOECHIA Hall & Clarke

Camarotoechia (?) indianensis Hall

4975 $\frac{7215}{1}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 26, 27.

Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Camarotoechia pauciplicata Wood

4976 $\frac{7222}{1}$ TYPE Camarotoechia pauciplicata Wood. New York state museum bulletin 49. 1901. p. 162, pl. 9, fig. 7–9.

Marcellus (Stafford) limestone Genesee county, N. Y.
E. Wood, donor

4977 $\frac{7222}{2}$ TYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 10–12.

Marcellus (Stafford) limestone Plumbottom creek, Lancaster, Erie co. N. Y.
E. Wood, donor

Camarotoechia prolifica ? Hall

4978 $\frac{7223}{1}$ HYPOTYPE? Stenoschisma prolificum Hall. Paleontology of New York. 1867. 4:343.

Camarotoechia prolifica ? Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 13–15.

Marcellus (Stafford) limestone Plumbottom creek, Lancaster N. Y.
E. Wood, donor

CHONETES Fischer de Waldheim

Chonetes scitulus Hall

4979 $\frac{7256}{4}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 4.
Marcellus (Stafford) limestone
Gayuga creek, Lancaster N. Y.
E. Wood, donor

4980 $\frac{7256}{5}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 5, 6.
Marcellus (Stafford) limestone
Cayuga creek, Lancaster N. Y.
E. Wood, donor

CHRISTIANIA Hall & Clarke

Christiania trentonensis Ruedemann

4981 $\frac{7275}{1}$ TYPE Christiania trentonensis Ruedemann. New York state museum bulletin 49. 1901. p. 21, pl. 2, fig. 2, 3.
Trenton conglomerate
Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

4982 $\frac{7275}{2}$ TYPE: PLASTOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 4.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

4983 $\frac{7275}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 5, 6.
Trenton conglomerate
Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

CRANIA Retz

Crania recta Wood

4984 $\frac{7325}{1}$ TYPE Crania recta Wood. New York state museum bulletin 49. 1901. p. 157, pl. 9, fig. 1.
Marcellus (Stafford) limestone
Lancaster, Erie co. N. Y.
E. Wood, donor
On slab with type of pl. 9, fig. 2, 3.

4985 $\frac{7325}{2}$ TYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 2.
Marcellus (Stafford) limestone
Lancaster N. Y.
E. Wood, donor
On slab with type of pl. 9, fig. 1, 3.

4986 $\frac{13\,25}{3}$ TYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 3.
Marcellus (Stafford) limestone Lancaster N. Y.
E. Wood, donor
On slab with type of pl. 9, fig. 1, 2.

EUNOA Clarke

Eunoa accola Clarke

4987 $\frac{15\,15}{1}$ TYPE Eunoa accola Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 607, pl. 5.
Beekmantown graptolite shale Deep kill,
Rensselaer co. N. Y.
R. Ruedemann, coll. 1901

4988 $\frac{15\,15}{2}$ TYPE Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 6, fig. 1.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

4989 $\frac{15\,15}{3}$ TYPE Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 6, fig. 2.
Beekmantown graptolite shale Deep kill, N. Y.
R. Ruedemann, coll. 1901

Leptaena aspera *see* Plectambonites sericeus *var.* asper

MONOMERELLA Billings

Monomerella noveboracum Clarke & Ruedemann

4990 $\frac{18\,25}{1}$ TYPE: PLASTOTYPE Monomerella noveboracum Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 39, pl. 2, fig. 1.
Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4991 $\frac{18\,25}{2}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 2, pl. 4, fig. 38.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4992 $\frac{18\,25}{3}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 3.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4993 $\frac{7825}{4}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 4.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4994 $\frac{7825}{5}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4995 $\frac{7825}{6}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 2, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4996 $\frac{7825}{7}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 1, 2.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4997 $\frac{7825}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 3.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4998 $\frac{7825}{9}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 4, 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4999 $\frac{7825}{10}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 3, fig. 7.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

ORBICULOIDEA d'Orbigny

Orbiculoidea magnifica Clarke

5000 $\frac{7806}{1}$ TYPE: PLASTOTYPE Orbiculoidea magnifica Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. p. 615; fig. facing p. 614.
Portage beds Tannery gully, Naples, Ontario co. N. Y.
D. D. Luther, coll. 1901

5001 $\frac{7806}{2}$ TYPE Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 7.
Portage beds Tannery gully, Naples N. Y.
D. D. Luther, coll. 1901

5002 $\frac{7896}{3}$ PLASTOTYPE Clarke. New York state museum bulletin 52; annual report of the state paleontologist. 1902. pl. 8.
Ithaca beds Truxton, Cortland co. N. Y.
Rev. H. A. Riley, donor

PLECTAMBONITES Pander

Plectambonites pisum Ruedemann

5003 $\frac{8041}{1}$ TYPE Plectambonites pisum Ruedemann. New York state museum bulletin 49. 1901. p. 19, pl. 1, fig. 8, 9.
Trenton conglomerate Rysedorph hill, Rensselaer co. N. Y.
R. Ruedemann, coll. 1900

5004 $\frac{8041}{2}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 10, 11.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5005 $\frac{8041}{3}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 12, 13.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5006 $\frac{8041}{4}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 14.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5007 $\frac{8041}{5}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 15.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5008 $\frac{8041}{6}$ TYPE: PLASTOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 16.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5009 $\frac{8041}{7}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 17, 18.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5010 $\frac{8041}{8}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 19.
Trenton conglomerate Rysedorph hill, N. Y.
R. Ruedemann, coll. 1900

5011 $\frac{8041}{9}$ TYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 20.

Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

Plectambonites sericeus Sowerby (sp.) *var.* **asper** James

5012 $\frac{8042}{1}$ HYPOTYPE Leptaena aspera James. Cincinnati quarterly journal of science. 1874. 1:151.

Plectambonites sericeus Sowerby var. asper Ruedemann. New York state museum bulletin 49. 1901. p. 18, pl. 1, fig. 6.

Trenton conglomerate — Rysedorph hill, Rensselaer co. N. Y. R. Ruedemann, coll. 1900

5013 $\frac{8042}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 7.

Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

RAFINESQUINA Hall & Clarke

Rafinesquina alternata Conrad (sp.)

5014 $\frac{8140}{2}$ HYPOTYPE Ruedemann. New York state museum bulletin 49. 1901. pl. 2, fig. 1.

Trenton conglomerate — Rysedorph hill, N. Y. R. Ruedemann, coll. 1900

RHYNCHOTRETA Hall

Rhynchotreta cuneata Dalman (sp.) *var.* **americana** Hall

5015 $\frac{8220}{6}$ HYPOTYPE Rynchotreta cuneata var. americana Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 23–25.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y. R. Ruedemann and D. D. Luther coll. 1902

SIPHONOTRETA de Verneuil

Siphonotreta minnesotensis Hall & Clarke

5016 $\frac{8325}{1}$ HYPOTYPE Siphonotreta minnesotensis Hall & Clarke. Paleontology of New York. 1892. v. 8, pt 1, p. 177.

Ruedemann. New York state museum bulletin 49. 1901. pl. 1, fig. 4, 5.

Trenton conglomerate — Rysedorph hill, Rensselaer co. N. Y. R. Ruedemann, coll. 1900

SPIRIFER Sowerby

Spirifer *cf.* bicostatus (Vanuxem) Hall

5017 $\frac{8366}{1}$ HYPOTYPE Spirifer bicostatus Hall. Paleontology of New York. 1852. 2:263.

Spirifer cf. bicostatus Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 22.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby, Orleans co. N. Y. R. Ruedemann and D. D. Luther, coll. 1902

Spirifer crispus Hisinger (sp.)

5018 $\frac{8338}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 10.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby N. Y. R. Ruedemann and D. D. Luther, coll. 1902

5019 $\frac{8338}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 4, fig. 11, 19, 20.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby N. Y. R. Ruedemann and D. D. Luther, coll. 1902

Stenoschisma prolificum *see* Camarotoechia prolifica ?

LAMELLIBRANCHIATA

Amnigenia catskillensis *see* Archanodon catskillensis

ARCHANODON Newton

Archanodon catskillensis Vanuxem (sp.)

5020 $\frac{2045}{1}$ HYPOTYPE Cypricardites catskillensis Vanuxem. Geology of New York; report on the 3d district. 1842. p. 186.

Amnigenia catskillensis Clarke. New York state museum bulletin 49. 1901. pl. 11.

Oneonta sandstone — Oxford, Chenango co. N. Y. E. E. Davis, donor

Astarte subtextilis *see* Euthydesma subtextilis
Avicula fragile *see* Lunulicardium fragile
Avicula speciosa *see* Buchiola speciosa
Avicula suplana *see* Pterinea subplana
Avicula undata *see* Pterinea undata

BUCHIOLA Barrande

Buchiola speciosa Hall (sp.)

5021 $\frac{9080}{1}$ HYPOTYPE Avicula speciosa Hall. Geology of New York; report on the 4th district. 1843. p. 243.
Glyptocardia speciosa Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 2.
Genesee shale Bristol Center, Ontario co. N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

5022 $\frac{9080}{2}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 3.
Genesee shale Bristol Center N. Y.
R. P. Whitfield and C. Van Deloo, coll. 1862

5023 $\frac{9080}{3}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 70, fig. 9.
Marcellus shale Near Skaneateles, Onondaga co. N. Y.
W. M. Gabb, coll. 1857

5024 $\frac{9060}{4}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 80, fig. 10.
Hamilton beds Norton's landing, Cayuga lake, N. Y.
H. H. Smith, coll. 1871

Cardiomorpha suborbicularis *see* Edmondia? tenuistriata
Cardiomorpha subtextilis *see* Euthydesma subtextile
Cardiomorpha textilis *see* Euthydesma subtextile
Cypricardites catskillenis *see* Archanodon catskillensis

EDMONDIA de Koninck

Edmondia ? tenuistriata Hall

(=Ungulina suborbicularis Hall (sp.))

5025 $\frac{9195}{1}$ TYPE Cardiomorpha suborbicularis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 9, 10.

Edmondia ? tenuistriata Hall. Paleontology of New York. 1885. v. 5, pt 1, p. 393, pl. 63, fig. 9, 10.
Portage (Naples) beds (Erroneously stated to be from the Chemung, Elmira N. Y.)
J. W. Hall and C. Van Deloo, coll. 1866

EUTHYDESMA Hall

Euthydesma subtextile Hall

5026 $\frac{22}{1}\frac{15}{1}$ HYPOTYPE Astarte subtextilis Hall. Geology of New York; report on the 4th district. 1843. p. 245.
Cardiomorpha subtextilis Hall. Preliminary notice of lamellibranchiata, pt 2. 1870. p. 93.
Cardiomorpha textilis Hall. Paleontology of New York. 1883. v. 5, pt 1, plates and explanations, pl. 63, fig. 14, 15.
Euthydesma subtextile Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 63, fig. 14, 15; pl. 93, fig. 29.
Portage beds Barcelona, Chautauqua co. N. Y.

5027 $\frac{22}{2}\frac{15}{1}$ HYPOTYPE Hall. Paleontology of New York. 1885. v. 5, pt 1, pl. 93, fig. 28.
Portage beds Barcelona N. Y.

Glyptocardia speciosa *see* Buchiola speciosa

LEPTODESMA Hall

Leptodesma marcellense Hall

5028 $\frac{23}{1}\frac{57}{1}$ HYPOTYPE Leptodesma marcellense Hall. Paleontology of New York. 1884. v. 5, pt 1, p. 175.
Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 16.
Marcellus (Stafford) limestone Plumbottom creek Lancaster, Erie co. N. Y.

5029 $\frac{23}{2}\frac{57}{1}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 17.
Marcellus (Stafford) limestone Plumbottom creek, Lancaster N. Y.
E. Wood, donor

LUNULICARDIUM Münster

Lunulicardium fragile Hall

5030 $\frac{44}{1}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 18.

Marcellus (Stafford) limestone — Plumbocrum creek, Lancaster N. Y. — E. Wood, donor

5031 $\frac{44}{1}$ HYPOTYPE Wood. New York state museum bulletin 49. 1901. pl. 9, fig. 19.

Marcellus (Stafford) limestone — Plumbocrum creek, Lancaster N. Y.

MYTILARCA Hall

Mytilarca acutirostrum Hall (sp.)

5032 $\frac{41}{1}$ HYPOTYPE Mytilarca acutirostrum Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 11.

Lower Shelby dolomite — Near Shelby, Orleans co. N. Y. — R. Ruedemann and D. D. Luther, coll. 1902

5033 $\frac{41}{1}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 12.

Lower Shelby dolomite — Near Shelby N. Y. — R. Ruedemann and D. D. Luther, coll. 1902

PTERINEA De Koninck

Pterinea subplana Hall sp.

5034 $\frac{41}{1}$ HYPOTYPE Avicula subplana Hall. Paleontology of New York. 1852. p. 285.

Pterinea subplana Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 4.

Lower Shelby dolomite — Near Shelby N. Y. — R. Ruedemann and D. D. Luther, coll. 1902

Pterinea undata Hall sp.

5035 $\frac{41}{1}$ HYPOTYPE Avicula undata Hall. Paleontology of New York. 1852. p. 285.

Pterinea undata Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 6.

Lower Shelby dolomite — Near Shelby N. Y. — R. Ruedemann and D. D. Luther, coll. 1902

GASTROPODA

BELLEROPHON Montfort

Bellerophon shelbiensis Clarke & Ruedemann

5036 $\frac{10017}{1}$ TYPE Bellerophon shelbiensis Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 51, pl. 5, fig. 13.
Lower Shelby dolomite Near Shelby, Orleans co. N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5037 $\frac{10017}{2}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 14, 18.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5038 $\frac{10017}{3}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 15.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5039 $\frac{10017}{4}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 16, 17.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5040 $\frac{10017}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 19.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

COELIDIUM Clarke & Ruedemann

Coelidium macrospira Hall (sp.)

5041 $\frac{10025}{1}$ HYPOTYPE: HYPOPLASTOTYPE Murchisonia macrospira Hall. Paleontology of New York. 1852. 2:346. Coelidium macrospira Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 13.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

DIAPHOROSTOMA Fischer

Diaphorostoma niagarense Hall (sp.)

5042 $\frac{10111}{1}$ HYPOTYPE: HYPOPLASTOTYPE Platyostoma niagarensis Hall. Paleontology of New York. 1852. 2:287.

NEW YORK STATE MUSEUM

5030 ? 738 *Diaphorostoma niagarense* Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 16.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

EOTOMARIA Ulrich

Eotomaria galtensis Billings (sp.)

5043 10128 HYPOTYPE Pleurotomaria galtensis Billings. Paleozoic Fossils. 1862. 1:154.

Eotomaria galtensis Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 10–12.

Upper Shelby dolomite — Oak Orchard creek, 2 miles south of Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

LOPHOSPIRA Whitfield

Lophospira bispiralis Hall (sp.)

5044 10128 HYPOTYPE: HYPOPLASTOTYPE Pleurotomaria bispiralis Hall. Paleontology of New York. 1852. 2:348.

Lophospira bispiralis Clarke & Ruedemann. New York state museum memoir 5. 1902. pl 10, fig. 6.

Lower Shelby dolomite — Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Murchisonia macrospira *see* Coelidium macrospira

Platyostoma niagarensis *see* Diaphorostoma niagarense

Pleurotomaria bispiralis *see* Lophospira bispiralis

Pleurotomaria galtensis *see* Eotomaria galtensis

POLEUMITA Clarke & Ruedemann

Poleumita crenulata Whiteaves (sp.)

5045 10110 HYPOTYPE: HYPOPLASTOTYPE Straparollus crenulatus Whiteaves. Paleozoic Fossils. 1884. v. 3, pt 2, p. 21.

Poleumita crenulata Clarke & Ruedemann. New York state museum memoir 5. 1902. pl 9, fig. 16.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

6 $\frac{10410}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. pl. 9, fig. 21.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Straparollus crenulatus *see* Poleumita crenulata

TREMATONOTUS Hall

Trematonotus alpheus Hall

7 $\frac{10560}{1}$ HYPOTYPE Tremanotus alpheus Hall. Separately printed in advance of 18th annual report of New York state cabinet of natural history. 1865. p. 43.
Trematonotus alpheus Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 5, fig. 21, 23.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

3 $\frac{10560}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 2.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

) $\frac{10560}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 3.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

) $\frac{10560}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 4.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

($\frac{10560}{5}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

2 $\frac{10560}{6}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5053 $\frac{10560}{7}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 7.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5054 $\frac{10560}{8}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 8.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5055 $\frac{10560}{9}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 6, fig. 9.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

TROCHONEMA Salter

Trochonema (Eunema) fatua *see* Trochonema *cf.* fatuum

Trochonema *cf.* fatuum Hall

5056 $\frac{10580}{1}$ HYPOTYPE Trochonema (Eunema) fatua Hall. 20th annual report of the New York state cabinet of natural history.[1] 1867. p. 345.
Trochonema cf. fatuum Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 5.
Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

PTEROPODA

CONULARIA Miller

Conularia gracilis Hall

5057 $\frac{11010}{1}$ HYPOTYPE Conularia gracilis Hall. Paleontology of New York. 1847. 1:224.
Ruedemann. American geologist. 1896. v. 17, pl. 8. fig. 1.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 1.
Utica shale Dolgeville, Herkimer co. N. Y.
R Ruedemann purchase

5058 $\frac{11}{3}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 2; v. 18, pl. 2, fig. 10.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 2; pl. 3, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5059 $\frac{11}{3}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 3.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 1, fig. 3.
Utica shale Dolgeville N. Y.
R Ruedemann purchase

5060 $\frac{11}{4}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 4; v. 18, pl. 2, fig. 17.
Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 1, fig. 4; pl. 3, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5061 $\frac{11}{5}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 8, fig. 6.
Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 1, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5062 $\frac{11}{6}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 1–4; v. 18, pl. 2, fig. 1.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 1–4; pl. 3, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5063 $\frac{11}{7}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 5, 6.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 5, 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5064 $\frac{11}{8}\frac{9}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 17, pl. 9, fig. 7.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 2, fig. 7.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5065 $\frac{11010}{9}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 2.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 2.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5066 $\frac{11010}{10}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 3, 4.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 3, 4.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5067 $\frac{11010}{11}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 5.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 5.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5068 $\frac{11010}{12}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 6.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 6.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5069 $\frac{11010}{13}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 11.

Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 3, fig. 11.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

5070 $\frac{11010}{14}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 12.

Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 12.

Utica shale Dolgeville N. Y.

R. Ruedemann purchase

slab with types of pl. 3, fig. 13 and 20.

5071 $\frac{11}{15}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 13.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 13.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 12 and 20.

5072 $\frac{11}{16}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 14–16.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 14–16.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5073 $\frac{11}{17}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 19.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 19.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5074 $\frac{11}{18}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. American geologist. 1896. v. 18, pl. 2, fig. 20.
Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 3, fig. 20.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 3, fig. 12 and 13.

5075 $\frac{11}{19}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 1.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5076 $\frac{11}{20}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 2.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5077 $\frac{11}{21}\frac{0}{0}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 3.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 4, fig. 7 and 30.

5078 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 4.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5079 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 5.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5080 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 6.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5081 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 7.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with types of pl. 4, fig. 3 and 30.

5082 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 8.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5083 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 9.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5084 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 10.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5085 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 11.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 30.

5086 $\frac{1}{3}\frac{1}{8}\frac{0}{1}\frac{1}{0}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 12.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with

5087 $\frac{11010}{31}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 13.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5088 $\frac{11010}{33}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 14.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5089 $\frac{11010}{33}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 15.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 31.

5090 $\frac{11010}{34}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 16.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 12.

5091 $\frac{11010}{35}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 17.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5092 $\frac{11010}{36}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 18.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 34.

5093 $\frac{11010}{37}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 19.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 25.

5094 $\frac{11010}{35}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. v. 1, pl. 4, fig. 20.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 11.

5095 $\frac{11010}{38}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 21.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5096 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 22.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5097 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 23.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 27.

5098 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 24.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5099 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 25.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 28.

5100 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New
York state geologist. 1898. pl. 4, fig. 26.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5101 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New
York state geologist. 1898. pl. 4, fig. 27.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 23.

5102 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New
York state geologist. 1898. pl. 4, fig. 28.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5103 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New
York state geologist. 1898. pl. 4, fig. 29.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5104 $\frac{11}{40}\frac{0}{10}$ HYPOTYPE Ruedemann. 15th annual report of the New
York state geologist. 1898. pl. 4, fig. 30.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5105 $\frac{11010}{49}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 31.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 15.

5106 $\frac{11010}{50}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 32.
Utica shale. Dolgeville N. Y.
R. Ruedemann purchase

5107 $\frac{11010}{51}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 33.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5108 $\frac{11010}{52}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 34.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 18.

5109 $\frac{11010}{53}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 35.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

5110 $\frac{11010}{54}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 36.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 37 and 38.

5111 $\frac{11010}{55}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 37.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 36 and 38.

5112 $\frac{11010}{56}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 38.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase
On slab with type of pl. 4, fig. 36 and 37.

5113 $\frac{11010}{57}$ HYPOTYPE Ruedemann. 15th annual report of the New York state geologist. 1898. pl. 4, fig. 39.
Utica shale Dolgeville N. Y.
R. Ruedemann purchase

HYOLITHUS Eichwald

Hyolithus neapolis Clarke

5114 11822 PLASTOTYPE Hyolithus neapolis Clarke. United States geological survey bulletin 16. 1885. p. 56, pl. 3, fig. 4, 5.

Portage (Naples) beds — Parrish gully, Naples, Ontario co. N. Y.

CEPHALOPODA

CYRTOCERAS Goldfuss

Cyrtoceras cf. breviconne Hall

5115 11822 HYPOTYPE Cyrtoceras breviconne Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 356.

Cyrtoceras cf. breviconne Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 80, pl. 15, fig. 12

Lower Shelby limestone — Near Shelby, Orleans co. N. Y. R. Ruedemann and E. M. Lerner, coll. 1902

Cyrtoceras arodes Billings

[illegible] Billings. Paleozoic [illegible]

[illegible] New York state museum [illegible]

[illegible] Near Shelby N. Y.

[illegible] New York state [illegible]

[illegible] Near Shelby N. Y.

[illegible]

[illegible]

[illegible] N. Y.

[illegible]

[illegible] Shelby N. Y.

[illegible]

› $\frac{12}{3}\frac{13}{0}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 17, fig. 5.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

[$\frac{12}{4}\frac{13}{0}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 17, fig. 8–10.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Dawsonoceras annulatum var. americanum *see* Orthoceras (Dawsonoceras) annulatum *var.* americanum

GEPHYROCERAS Hyatt

Gephyroceras perlatum Hall (sp.)

2 $\frac{12}{3}\frac{63}{}$ HYPOTYPE (of description) Gephyroceras perlatum Clarke. 16th annual report of the New York state geologist. 1899. p 85.
Portage (Ithaca) beds Ithaca N. Y.
C. Van Deloo, coll. 1874

GYROCERAS De Koninck

Gyroceras farcimen Clarke & Ruedemann

3 $\frac{12230}{1}$ TYPE Gyroceras farcimen Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 92, pl. 18, fig. 1–3.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

4 $\frac{12230}{2}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 18, fig. 4.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Kionoceras medullare *see* Orthoceras (Kionoceras) medullare

MANTICOCERAS Hyatt

Manticoceras contractum Clarke

5 $\frac{12302}{3}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 70, fig. 44.
Genesee shale (Styliola limestone)
Canandaigua lake, N. Y.
J. M. Clarke donor

Manticoceras oxy Clarke

5126 $\frac{12305}{4}$ TYPE Clarke. 16th annual report of the New York state geologist. 1898. p. 78, fig. 61.

Portage (Naples) beds Naples N. Y.

J. M. Clarke, donor

ORTHOCERAS Breyn

Orthoceras (Dawsonoceras) annulatum Sowerby

var. **americanum** Foord

5127 $\frac{12425}{1}$ HYPOTYPE Orthoceras annulatum var. americanum Foord. Cat. Fossil Ceph. British Museum. 1888. p. 56, 57.

Dawsonoceras annulatum var. americanum Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 1.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras crebescens Hall

5128 $\frac{12420}{1}$ HYPOTYPE Orthoceras crebescens Hall. 20th annual report of the New York state cabinet of natural history. 1867. p. 354.

Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 24.

Lower Shelby dolomite Near Shelby, Orleans co. N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5129 $\frac{12420}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 27; pl. 11, fig. 2, 5.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5130 $\frac{12420}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 28; pl. 11, fig. 3.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

5131 $\frac{12420}{4}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 4.

Lower Shelby dolomite Near Shelby N. Y.

R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras darwini *see* Orthoceras (Kionoceras) darwini

Orthoceras (Kionoceras) darwini Billings

32 $\frac{12421}{1}$ HYPOTYPE: HYPOPLASTOTYPE Orthoceras darwini Billings. Paleozoic fossils. 1862. 1:161.
Kionoceras darwini Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 11, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll 1902

33 $\frac{12421}{2}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 5, 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

34 $\frac{12421}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 7.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

35 $\frac{12421}{4}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 8.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras (Kionoceras) medullare Hall

36 $\frac{12384}{2}$ HYPOTYPE: HYPOPLASTOTYPE Kionoceras medullare Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 10, fig. 23.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras ontario Clarke

37 $\frac{12422}{1}$ PLASTOTYPE Orthoceras ontario Clarke. United States geological survey bulletin 16. 1885. p. 51, pl. 3, fig. 1.
Portage (Naples) shale Parrish gully, Naples N. Y.

Orthoceras rectum Worthen

38 $\frac{12423}{1}$ HYPOTYPE Orthoceras rectum Worthen. Geological survey of Illinois. 1875. 6:504.
Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 12, fig. 9.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Orthoceras trusitum Clarke & Ruedemann

5139 12424 TYPE Orthoceras trusitum Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 77, pl. 13, fig. 6.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

5140 12424 TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 13, fig. 12.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

PETERICERAS McCoy

Ptericeras sp.

5141 12421 TYPE Ptericeras sp. Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 96, pl. 13, fig. 13–15.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

Ptericeras saurides Clarke & Ruedemann

5142 12422 TYPE Ptericeras saurides Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 96, pl. 13, fig. 16–18.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

5143 12423 TYPE Ptericeras saurides Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 96, pl. 13, fig. 19–21.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

5144 12424 TYPE Ptericeras saurides Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 96, pl. 13, fig. 22–24.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

5145 12425 TYPE Ptericeras saurides Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 96, pl. 13, fig. 25–27.

Lower Shelby dolomite — Near Shelby N.Y.

R. Ruedemann and D. D. Luther, coll. 1902

5147 $\frac{12471}{6}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 16.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5148 $\frac{12471}{7}$ TYPE: PLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 17.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5149 $\frac{12471}{8}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 14, fig. 18, 19.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

PROTOPHRAGMOCERAS Hyatt

Protophragmoceras patronus Clarke & Ruedemann

5150 $\frac{12490}{1}$ TYPE Protophragmoceras patronus Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 97, pl. 19, fig. 1, 2.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

TROCHOCERAS Barrande

Trochoceras costatum Hall

5151 $\frac{12371}{1}$ HYPOTYPE: HYPOPLASTOTYPE Trochoceras costatum Hall. Geological survey of Wisconsin; report of progress. 1861.
Clarke & Ruedemann. New York state museum memoir 5. 1902. pl 20, fig. 1.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5152 $\frac{12371}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 2.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

Trochoceras desplainense McChesney

5153 $\frac{12372}{1}$ HYPOTYPE Trochoceras desplainensis McChesney. New paleozoic fossils. 1859. p. 68.
Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 4.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5154 $\frac{12512}{2}$ HYPOTYPE: HYPOPLASTOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 6.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5155 $\frac{12512}{3}$ HYPOTYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 20, fig. 8.
Lower Shelby dolomite Near Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

CRUSTACEA

ISOTELUS De Kay

Isotelus canalis Conrad

5156 $\frac{12840}{2}$ TYPE (Conrad in ms) Hall. Paleontology of New York. 1847. v. 1, pl 4 bis, fig. 19.
Chazy limestone Chazy, Clinton co. N. Y.

Proëtus sp.

5157 $\frac{14005}{1}$ TYPE Proetus sp. Clarke & Ruedemann. New York state museum memoir 5. 1902. p. 108, pl. 21, fig. 14.
Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5158 $\frac{14005}{2}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 21, fig. 15.
Upper Shelby dolomite Oak Orchard creek, 2 miles south of Shelby N. Y.
R. Ruedemann and D. D. Luther, coll. 1902

5159 $\frac{14005}{3}$ TYPE Clarke & Ruedemann. New York state museum memoir 5. 1902. pl. 21, fig. 16.
Upper Shelby dolomite Oak Orchard creek. 2 miles south of Shelby N. Y,
R. Ruedemann and D. D. Luther, coll. 1902

CLASSIFICATION OF TYPE SPECIMENS BY GEOLOGIC FORMATIONS

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[illegible]

Plantae

[illegible]

Cnidaria

[illegible]

Echinodermata

[illegible]

Bryozoa

[illegible]

Brachiopoda

[illegible]

Gastropoda

[illegible]

Cephalopoda

[illegible]

Crustacea

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